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COUNTY BOROUGH OF BOOTLE.



ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR
1934

F. T. H. WOOD, O.B.E., M.D. (Lond.), B.S., B.Sc., D.P.H.

**Medical Officer of Health, School Medical Officer, Medical
Officer to the Public Assistance Committee, etc.**

BOOTLE :
BOOTLE TIMES, LTD., 30, ORIEL ROAD.

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BOOTLE TOWN COUNCIL 1933-1934.

†*His WORSHIP THE MAYOR (Mr. COUNCILLOR WEBSTER).

†Mr. ALDERMAN BOOTH, J.P.	Mr. COUNCILLOR HANKEY, J.P.
§*Mr. ALDERMAN CLARK, J.P.	COUNCILLOR DR. HARRIS.
Mr. ALDERMAN CULLEN.	*Mr. COUNCILLOR HARRISON.
Mr. ALDERMAN GARDNER, J.P.	Mr. COUNCILLOR HOLDEN.
Mr. ALDERMAN HARRIS, J.P.	†*Mr. COUNCILLOR HUGHES.
†*Mr. ALDERMAN HAWORTH, J.P.	Mr. COUNCILLOR JONES, J.P.
Mr. ALDERMAN HUGHES.	*Mr. COUNCILLOR D. KELLY.
Mr. ALDERMAN KEENAN.	Mr. COUNCILLOR J. S. KELLY.
†Mr. ALDERMAN MAHON, J.P.	†§*Mr. COUNCILLOR KINLEY.
Mr. ALDERMAN PATRICK, J.P.	†Mr. COUNCILLOR McMULLEN.
Mr. ALDERMAN SCOTT, J.P.	*Mr. COUNCILLOR MAGUIRE, J.P.
Mr. ALDERMAN SMITH, J.P.	†*Mr. COUNCILLOR P. MAHON.
†*Mr. COUNCILLOR A. E. ABBOTT.	Mr. COUNCILLOR MARSH.
†§*Mrs. COUNCILLOR BALLANTYNE.	Mr. COUNCILLOR OLSWANG, J.P.
†*Mr. COUNCILLOR BAUCHER.	Mr. COUNCILLOR O'NEILL.
Mr. COUNCILLOR D. B. BLACK.	Mr. COUNCILLOR RAINFORD.
Mr. COUNCILLOR R. A. BLACK.	Mr. COUNCILLOR RILEY.
Mr. COUNCILLOR BURNIE.	†§*Mr. COUNCILLOR ROBERTS.
Mr. COUNCILLOR CAIN.	(deceased 9/7/34).
Mr. COUNCILLOR CAMPBELL.	Mr. COUNCILLOR ROGERS.
†Mr. COUNCILLOR CLEARY.	†§*Mrs. COUNCILLOR SMITH.
†§*Mr. COUNCILLOR CONNOLLY.	Mr. COUNCILLOR SPENCE.
†*Mr. COUNCILLOR H. O. CULLEN.	Mr. COUNCILLOR STEWART.
Mr. COUNCILLOR HACKETT.	

* Member of Health Committee.

§ Member of Maternity and Child Welfare Sub-Committee.

† Member of Housing and Town Planning Committee.

HEALTH COMMITTEE.

Chairman—COUNCILLOR DR. HARRIS.

Deputy Chairman—Mr. COUNCILLOR KINLEY.

MATERNITY AND CHILD WELFARE SUB-COMMITTEE.

Chairman—Mrs. COUNCILLOR SMITH.

Deputy-Chairman—COUNCILLOR DR. HARRIS.

This Committee consisted of members of the Health Committee (as indicated), together with co-opted members as follows:—

Mr. COUNCILLOR O'NEILL; Mrs. WEIR; Mrs. GRANT; Mrs. HEVEY.

HOUSING AND TOWN PLANNING COMMITTEE.

Chairman—Mr. ALDERMAN HAWORTH.

Deputy-Chairman—Mr. COUNCILLOR RAINFORD.

STAFF OF THE PUBLIC HEALTH DEPARTMENT.

Medical Officer of Health, Administrative Tuberculosis Officer, and Medical Superintendent of the Corporation Hospitals—

F. T. H. WOOD, O.B.E., M.D., B.S., B.Sc. (Lond.), D.P.H. (Durh.).

Tuberculosis Officer and Deputy Medical Officer of Health—

R. HANNAH, M.C., M.B., Ch.B. (Edin.), D.P.H.

Assistant School Medical Officers and Assistant Medical Officers of Health—

Miss M. B. CLARKE, M.B., Ch.B., D.P.H. (Liverpool).

G. P. McCLOSKEY, M.B., B.Ch., B.A.O. (Belf.), D.P.H.

School Dental Surgeons—

H. B. DAWES, L.D.S.

L. W. SMITH, L.D.S. (part-time).

Corporation Hospital, Linacre Lane.

*Matron—*Miss S. L. BEVAN.

Maghull Sanatorium.

*Matron—*Miss E. HOLDEN, R.R.C.

Maternity Home.

*Matron—*Miss M. W. CLEARY.

Chief Sanitary Inspector, Inspector under the Food and Drugs Acts, and the Housing Acts, etc.—

¹²J. C. PALMER, M.C.

Sanitary Inspectors—

¹²B. J. HOLDEN.

¹W. ROBSON.

¹²W. E. LEATHER.

¹²³A. D. H. JOHNSTONE.

*Chief Clerk—*N. LOCKWOOD.

Clerical Staff—

H. A. BROWN, O.B.E. Miss WILSON. Miss THOMPSON. S. ASTLEY. Miss MAXWELL,
Miss BROWN. Miss BEATTIE. Miss GREEN. Miss SMITH. Miss W. MUIHALL.
O. D. WILLIAMS.

*Vaccination Officer (Part-time)—*R. W. JACKSON.

Health Visitors—

¹Mrs. McKOWEN.

⁴⁵⁶Mrs. MEREDITH.

⁴⁵⁶Miss F. M. HUGHES.

⁴⁵⁸Miss STARK.

¹⁴⁵⁸Miss SKINNER.

⁴⁵⁸Miss WILD.

⁴⁵⁸Miss LYNCH.

School Nurses—

⁸Miss A. HUGHES.

⁸Miss THOMAS.

⁸Miss DAVIES.

⁸Miss C. HUGHES
(Orthopaedics).

*Tuberculosis Nurse—*⁸Miss KELLY.

Part-time Officers.

<i>Medical Officer, Ante-Natal Clinic</i>	P. MALPAS, F.R.C.S.
<i>Medical Officer, Maghull Sanatorium</i>	A. HENDRY, M.D.
<i>Medical Officers, Venereal Diseases Clinic .</i>	{ W. L. WEBB, M.B., Ch.B.
	{ Miss R. NICHOLSON, M.B., D.P.H.
<i>Ophthalmic Surgeon</i>	E. ALLAN, M.B., Ch.B.
<i>Throat Surgeon</i>	C. YORKE, F.R.C.S.
<i>Orthopaedic Surgeon</i>	B. L. MCFARLAND, M.D.
<i>Medical Officer, Aural Clinic</i>	I. A. TUMARKIN, M.B., Ch.B., F.R.C.S.
<i>Public Vaccinators</i>	{ A. W. HANLON, M.R.C.S., L.R.C.P.
(also District Medical Officers).	{ A. V. GLENDENNING, M.B., Ch.B., D.P.H.
<i>Pathologist</i>	Professor J. M. BEATTIE.
<i>Analyst</i>	W. H. ROBERTS, M.Sc., F.I.C.
<i>Veterinary Surgeon</i>	HENRY SUMNER, M.R.C.V.S.
<i>Rat Officer</i>	W. BORROWS.
¹ Certified Sanitary Inspector.	² Certified Inspector of Foods.
⁴ Certified Health Visitor.	³ Certified Smoke Inspector.
	⁵ Certified Midwife.
	⁶ Half-time Tuberculosis Visitor.
⁷ Assistant Inspector of Midwives.	⁸ Trained Nurse.

HEALTH DEPARTMENT,
TOWN HALL,
BOOTLE.
April 1935.

*To the Mayor, Aldermen and Councillors
of the County Borough of Bootle.*

MR. MAYOR, MAYORESS AND GENTLEMEN,

I have the honour to present the sixty-second Annual Report on the work of the Health Department.

Attention may be directed to the following features of interest during the year:—

- (1) A continuance of the relatively high birth rate of 21·4 per 1,000 of the population.
- (2) A fall in the death-rate to 12·9 per 1,000 of the population, a figure which has been bettered only in 1924 and 1930.
- (3) A fall in the infantile mortality rate to 77 per 1,000 births, the lowest rate yet recorded in the Borough.
- (4) A high incidence of diphtheria of a severe type with a high fatality-rate.
- (5) Increased calls on the services of the District Medical Officers, which were finally met by increasing the number of sessions of attendance after an attempt had been made to institute the “open-choice” system of providing medical services in one district.
- (6) The installation of radiographic apparatus at the Health Centre with resultant increase in the efficiency of the Tuberculosis Scheme.
- (7) Continuance with the programme of systematic inspection and repair of working-class houses, which is resulting in considerable additions to domestic convenience year by year.

- (8) The carrying out of a housing survey which demonstrated the existence of extensive overcrowding, as measured by the standard of the Housing Act, 1930, employed in re-housing persons displaced from Clearance Areas.

I have pleasure in recording my indebtedness to the Chairman and members of the Health Committee for the sympathetic reception given to recommendations made for the maintenance and development of public health work in the Borough, and in acknowledging the continued good service of my colleagues in the Department.

I have the honour to be,

Your obedient servant,

F. T. H. WOOD,

Medical Officer of Health.

STATISTICAL SUMMARY FOR 1934.

Population (Registrar General's estimate) at mid-year 1934 ...	76,800
Area in Acres (exclusive of Dock Estate—337)	1,610
Population at Census of 1931	76,770

Census.	Per occupied dwelling.	
	No. of persons.	No. of families
1911	5·6	1·12
1921	5·6	1·17
1931	5·03	1·18

Inhabited houses (end of 1934) according to Rate Books ...	16,164
Uninhabited houses (end of 1934) according to Rate Books ...	162

	Total.	Males.	Females.		
Live Births—Legitimate ...	1,595	863	732		
Illegitimate ...	49	24	25		
Total ...	1,644	887	757	Birth Rate	21·4

Still Births, 71.	Rate per 1,000 total (live and still) births	41·4
Deaths	990	Death Rate 12·9
Number of women dying in, or in consequence of, childbirth—		

	Deaths.	Rate per 1,000 total (live and still) births
From sepsis	3	1·81
From other causes ...	4	2·33
Death Rate of Infants under one year of age per 1,000 live births—Legitimate, 76; Illegitimate, 102; ... Total		77
Deaths from Measles (all ages)		26
Deaths from Whooping Cough (all ages)		2
Deaths from Diarrhoea (under 2 years of age)... ..		11
Death Rate from Respiratory Tuberculosis per 1,000...		1·17
Death Rate from all forms of Tuberculosis per 1,000...		1·37
Natural increase of the population during the year		654
Number of deaths of Infants (under the age of one year) ...		126

The Rateable Value of the Borough for 1934-35 was £499,847

A Penny Rate on the Borough Fund produced in 1934-35 ... £1,878

In 1934-35 the General Rate was 12/6d. in the pound (excluding water rate and charges).

The cost of the Health Services during 1934-35 is estimated at £31,395 approximately, equivalent to a rate of 1s. 4.88d. in the pound.

COUNTY BOROUGH OF BOOTLE.
ANNUAL REPORT
 OF THE
MEDICAL OFFICER OF HEALTH.

I.—VITAL STATISTICS.

Population.—At the Census in 1881 the population enumerated was 27,374; in 1891, 49,217; in 1901, 58,556; in 1911, 69,876; in 1921, 76,487; and in 1931, 76,770.

In April 1935, the Registrar-General intimated that his estimate of population at mid-year 1934 was **76,800**, a decrease of 410 from the previous year, and this figure has been used in calculation of statistics throughout this report. This decreased estimate implies substantial migration in view of the natural increase of the population during the year by 654.

Births.—During the year there were registered 1,644 births to Bootle parents, representing a birth-rate of **21·4 per 1,000** of the population, that for England and Wales being 14·8. In 1933 the Bootle birth-rate was 21·4 and for the decennium 1924-1933 it was 23·3. There were 887 males and 757 females. It will be noted that the birth-rate which reached a post-war maximum of 29·7 in the first quarter of 1920 and has since then progressively declined, except for checks in 1930 and in 1932, is the same as last year. The national birth-rate, which has always been lower than that for Bootle, however, showed a small rise.

Period.	BOOTLE.		ENGLAND & WALES.
	Total Births.	Rate per 1,000.	Rate per 1,000.
1881—1890 ...	15,508	36·8	32·4
1891—1900 ...	17,716	33·2	29·9
1901—1910 ...	20,468	32·3	27·2
1911—1920 ...	20,748	27·6	21·8
1921—1925 ...	10,003	26·1	19·9
1926—1930 ...	8,881	23·2	16·7
1931 ...	1,667	21·6	15·8
1932 ...	1,768	22·9	15·3
1933 ..	1,652	21·4	14·4
1934 ...	1,644	21·4	14·8

The illegitimate births numbered 49, and were 3·0 per cent. of the total. In 1933 the total number was 54, and in 1932, 62.

Deaths.—The total number of deaths of Bootle residents during 1934, whether within or without the Borough, was 990; this figure includes 97 (excluding 45 deaths of “non-residents”) who died in institutions within the Borough, 387 who died in transferred institutions in Liverpool, 52 who died in hospitals outside the Borough, and 9 who died in mental hospitals, making a total of 545 deaths in institutions. The death-rate for 1934 was, therefore, **12·9 per 1,000** of the population, as compared with 13·9 in 1933, and 13·3 in 1932.

The decrease in the death-rate was for the most part due to a lower mortality from respiratory diseases, which was not counter-balanced by the larger number of deaths from cancer. The decrease was shown in all age-groups except childhood, during which period there was an increase due to diphtheria.

The death-rate in Bootle for the decennium 1921-1930 was 13·5, and for 1911-1920, 17·1. The crude death-rate of the 121 great towns of England and Wales during 1934 was 11·8, compared with 12·3 in 1933. The table below demonstrates the general downward trend of both national and local rates since the beginning of the century.

Period.	BOOTLE.		ENGLAND & WALES.
	Total Deaths.	Rate per 1,000.	Rate per 1,000.
1881—1890 ...	8,260	19·9	19·1
1891—1900 ...	10,942	20·6	18·2
1901—1910 ...	11,400	17·8	15·4
1911—1920 ...	12,470	17·1	14·3
1921—1925 ...	5,230	13·7	12·2
1926—1930 ...	5,106	13·3	12·1
1931 ...	1,140	14·8	12·3
1932 ...	1,027	13·3	12·0
1933 ...	1,075	13·9	12·3
1934 ...	990	12·9	11·8

The death rate during the first quarter of the year was 16·5, during the second, 12·0; the third, 11·0; and the fourth, 11·9.

The number of deaths which occurred in institutions was 545, *i.e.*, 55 per cent. of the total deaths, as compared with 54 per cent. in 1933.

Association of Overcrowding with Rates of Mortality.—The Registrar-General's Statistical Review for 1932, published in March 1935, examines the descending progression of mortality rates from North to South especially noticeable in childhood, and gives reasons for believing that the factor of paramount importance in causing this progression is the falling rate of persons per room. Thus, taking the standard of two persons per room as a measure of overcrowding, it is shown that in County Boroughs with 9—18 per cent. of their population so overcrowded (in Bootle at Census of 1931 there were 9·5 per cent. of the population so overcrowded) there is a mortality rate at ages under five years half as great again as in County Boroughs with less than 3 per cent. of the population overcrowded; in the cases of the respiratory diseases and measles and whooping cough the increased rate is even greater. The mechanism in production of such higher rates of mortality is in part at least the increased danger of "droplet" infection, or infection transmitted by the spray in air expelled from the respiratory passages during coughing, sneezing, or loud talking.

The same volume of the Registrar-General contains a table classifying the mortality in County Boroughs grouped into aggregates having varying numbers of persons per room, and this table demonstrates that in the group having 0·85 to 1·00 persons per room (in Bootle at Census of 1931 there were 0·95 persons per room) there is a mortality at all ages together 16 per cent. in excess of that for England and Wales as a whole, and an infantile mortality rate 22 per cent. in excess of that for England and Wales as a whole.

The Registrar-General concludes his examination of the problem by pointing out that at ages 1—5 children are more exposed to the risks attending a bad home environment, and that whether the high association of their mortality rates with overcrowding within the house is due to poverty or to insufficient room accommodation *per se* it is at these ages that the greatest benefits may be anticipated from a mitigation of the overcrowding evil.

Comparability of Crude Death Rates.—If the populations of all areas were similarly constituted as regards the proportions of their sex and age group components, their crude death rates (deaths per 1,000 population) could be accepted as valid comparative measures of the mortalities experienced by the several populations.

In practice, however, populations are not thus similarly constituted and their crude death rates fail as true comparative mortality indexes in that their variations are not due to mortality alone but arise also

from differences in their population constitution, the two elements being combined in indistinguishable proportions. In order to isolate the mortality factor it is first necessary to identify and remove the population variable.

For this purpose the Registrar-General has supplied a "Comparability Factor" by which the crude death rate of the area should be multiplied in order to make it comparable, from a mortality point of view, with the crude death rate of the country as a whole or with the mortality of any other local area, the crude death rate of which should be similarly modified with its own factor for the purpose.

In the case of Bootle the comparatively youthful nature of the population results in the comparability factor being 1.18, with a rise in the adjusted death rate to 15.2. The standardized death rate based upon the constitution of the 1901 population as regularly used by the Registrar-General in his annual reviews is, however, 12.5, a lower figure than the crude death rate.

Mortality in Relation to Sex.—There were 538 deaths of males, and 452 of females. This represents a male excess mortality of approximately 29.2 per cent. after allowing for the smaller proportion of males in the population. The causes chiefly accounting for male excess are in order of importance, pneumonia, tuberculosis, violence and bronchitis.

Mortality in Relation to Old Age.—The following table demonstrates the fact that people are surviving until later ages, and shows that the number of people surviving to the age of 65 and over has increased to such an extent this century that 33.2 per cent. of the deaths in Bootle at the present day are of persons aged 65 or over, whereas in the first five years of this century the contribution to the general death-rate made by persons over 65 was only 14.8 per cent.

Period.	DEATHS.		Percentage over 65 Years.
	Total.	Over 65 Years.	
1901—1905 ...	5,671	849	14.8
1906—1910 ...	5,729	923	16.1
1911—1915 ...	6,259	1,197	19.1
1916—1920 ...	6,211	1,304	21.0
1921—1925 ...	5,230	1,352	25.8
1926—1930 ...	5,106	1,533	30.1
1931 ...	1,140	396	34.7
1932 ..	1,027	349	34.1
1933 ...	1,075	390	36.2
1934 ...	990	329	33.2

An examination of the ages at death of individuals in this age-group shows that there were 94 deaths at years 65 to 70, 94 deaths at years 70 to 75, 74 at years 75 to 80, 53 at years 80 to 85, 10 at years 85 to 90, and 4 at years 90 to 95.

Infantile Mortality.—There were 126 deaths of infants, compared with 146 in 1933, 152 in 1932, and 159 in 1931. The infantile mortality rate was **77 per 1,000** births, compared with 88 in 1933, and 86 in 1932, and 91·2 in the decennium of 1923-1932.

The rate of infantile mortality amongst males was 79 and amongst females 74. Throughout England and Wales the rate of infantile mortality was 59 per 1,000 births, and in the 121 great towns it was 63.

The great decline in the infantile mortality rate began substantially in the decennium 1901-1910, during which period active measures were first instituted to secure such a reduction. The following table demonstrates in terms of lives saved what in fact such a decline really means.

DEATHS OF INFANTS UNDER ONE YEAR.			
Years.	Actual recorded Deaths.	Number which would have been recorded had the rate of mortality observed over 1901-10* still prevailed.	Saving.
1911—1915 ...	1434	1596	162
1916—1920 ...	1031	1474	443
1921—1925 ...	912	1480	568
1926—1930 ...	793	1314	521
1931 ...	159	247	88
1932 ...	152	262	110
1933 ...	146	241	95
1934 ...	126	203	77

* Rate of mortality 1901-1910 was 148 per 1,000 births.

From the above table it will be seen that in the decennium 1921-1930 Bootle saved 1,089 infant lives over and above what it was saving in the relatively good decennium 1901-1910, with further savings of 370 during the four subsequent years.

Forty children died before they were a week old, and a total of 52, or 41·3 per cent., of all the deaths under one year, occurred in children under the age of one month. This is a neo-natal mortality rate of 31·6 per 1,000.

Young Child Mortality.—In 1934 there were 73 deaths of children aged 1 to 5 years, as compared with 80 in 1933. The principal causes were—measles 21, diphtheria 16, pneumonia 13, violence 6, tuberculosis 4, and meningitis 4.

Uncertified Deaths.—Fifty-nine deaths (37 of residents and 22 of non-residents) were the subject of a Coroner's inquest, while in 42 cases the death was registered without certification by a medical man or a Coroner; this is equivalent to 4·2 per cent. of deaths uncertified.

CAUSES OF DEATH.

The causes of death, classified according to age, are shown in the table on page 71. The table below sets out the principal certified causes of death.

Year 1934.	No. of Deaths.	Proportion per 1,000 Deaths	
		Bootle, 1934.	England & Wales, 1933.
Bronchitis, pneumonia and other respiratory diseases	165	167	113
Cancer, malignant diseases	124	125	124
Diseases of heart and circulation ...	123	124	269
Tuberculosis (all forms)	106	107	67
Epidemic diseases	80	81	25
Diseases of the nervous system	58	59	79
Prematurity and congenital debility ...	52	53	32
Violence	25	25	46

Epidemic Diseases.—The epidemic diseases (excluding influenza) were responsible for 80 deaths, as compared with the average of 78·3 during the preceding ten years. There were 26 deaths from measles as contrasted with 11 in 1933; 36 deaths from diphtheria, as against 21 in 1933; 2 deaths from whooping cough, as against 13; 2 deaths from scarlet fever, as against 2 in the previous year. The deaths from diarrhoea and enteritis were 14, as against 36 during 1933; 11 were of children under two years of age.

Respiratory Diseases.—The death-rate from respiratory diseases reverted to a lower level than had been recorded in recent years. Pneumonia was responsible for 110 deaths, bronchitis for 49, and other respiratory diseases for 6, making the total deaths from respiratory diseases (excluding tuberculosis) 165, or 16·7 per cent. of the total deaths at all ages, as compared with 236, or 21·9 per cent. in 1933. Influenza was entered as a cause of death in 12 cases, as against 19 in the preceding year.

The table below shows the seasonal nature of deaths from diseases of the respiratory system (excluding tuberculosis and influenza).

Month.	No. of Deaths.	Death-rate per 1,000 living.	Month.	No. of Deaths.	Death-rate per 1,000 living.
January	35	0·46	July	7	0·09
February	25	0·33	August	2	0·03
March	11	0·14	September	9	0·12
April	15	0·19	October	7	0·09
May	13	0·17	November	14	0·18
June	9	0·12	December	18	0·23

Cancer.—Cancer was registered as the cause of death in 124 cases, as compared with 89 in the preceding year. This represents a cancer death-rate of 1·66 per 1,000 of the population as compared with 1·01 during the years 1911 to 1920, with 0·78 per 1,000 during the first ten years of this century, and with 0·55 during the ten years 1891 to 1900. The corresponding rate for England and Wales in 1934 was 1·56, and in part the rise in incidence is a measure of the greater proportion of persons of higher age in the population, for a characteristic of malignant disease is its special tendency to attack those over middle age.

ECONOMIC CONDITIONS.

Valuable information as to economic conditions having a bearing on the health of the town is obtained from data kindly supplied by the Clerk to the Public Assistance Committee, by the Ministry of Labour, and by the Clerk to the Bootle Insurance Committee.

It appears that during the year 1934 £107,807 15s. 6d. was expended in outdoor relief, including £58,020 8s. 6d. to unemployment cases (comparable figures for 1933 were £82,843 and £40,443). Further, the annual return of persons in receipt of Poor Relief on the night of 1st January 1935 shows 410 persons to have been in receipt of institutional relief, of whom 55 were persons not suffering from sickness, accident, or bodily or mental infirmity, and 7,270 persons to have been in receipt of domiciliary relief, of whom 3,413 were relieved on account of unemployment. The total number of persons in receipt of Poor Relief on 31st December 1934 was equivalent to 951 per 10,000 of the population.

Returns of the Ministry of Labour show that at the undermentioned dates the following numbers of insured men and women were recorded as unemployed and resident in the Borough, namely:—

				Men.	Women.
23rd April 1934	...	...	...	6,288	623
23rd July 1934	...	...	...	6,596	616
22nd October 1934	...	...	...	6,277	692
28th January 1935	...	...	...	6,741	810

The following table summarises conditions as to unemployment and public assistance for the past five years:—

Year.	Approximate monthly average of unemployed adult males.	Persons in receipt of relief on 1st January.		Total cost of outdoor relief.
		Institutional	Domiciliary	
1930	9202	481 (31/3/30)	2484	£ 36,268
1931	7598	475	2864	47,865
1932	7013	375	3936	64,999
1933	6926	455	5659	82,843
1934	6476	431	6871	107,807

As regards National Health Insurance, the total number of insured persons in the Borough on 1st October 1934 was 31,326, or 40·8 per cent. of the total population. There was a small decrease in the number of prescriptions made up during the year, commensurate with the fall in the numbers of the insured population. It will be recalled that

this figure rose from 50,738 in 1921 to 150,866 in 1933, with a corresponding increase in the annual cost of medicines from £1,955 to £4,718 2s. 9d.; while this year the experience is 146,006 prescriptions at a cost of £4,557 18s. 6d.

An examination of the average cost of prescribing during 1933 per head of the insured population included in the prescribing lists in each of the 128 Insurance Committee Areas showed Bootle to occupy the twenty-eighth position in order of decreasing costs, and the Chief Medical Officer of the Ministry of Health has commented in this connection on the absence of any evidence in those areas where the habit of taking medicine is highly developed that a more satisfactory standard of health has been achieved.

II. GENERAL PUBLIC MEDICAL TREATMENT.

The control of the transferred medical services remains with the Public Assistance Committee, although in November 1931 the Council delegated to the Health Committee the powers contained in Part I of the Local Government Act, 1929, with respect to the provision of hospital accommodation.*

INSTITUTIONAL ACCOMMODATION FOR THE SICK.

By agreement continuing until April 1950 arrangements have been made for the reception of Bootle sick in to the hospitals transferred to the Liverpool City Council after passing of the Local Government Act, 1929.

During the year the total admissions to the transferred hospitals numbered 3,792, of which figure, it may be noted, 1,624 were admissions on the orders of medical superintendents or masters, implying urgent conditions in which it was inadvisable to go through the ordinary routine of application to a Relieving Officer. In the form in which weekly returns are received it is not easy to ascertain with certainty the number of sick persons (hospital or infirmary patients) as contrasted with those not in need of medical service, but it appears that the average weekly totals of persons chargeable to Bootle in transferred institutions (including able-bodied adults) in the four quarters were respectively 442, 444, 423, and 418, showing a weekly average of

432 during the whole of the year. These figures do not include mental patients chargeable to the Authority, the average weekly number of which was 200 during the year.

The following table, prepared by the Medical Officer of Health of Liverpool at the request of the Ministry of Health, gives a classification of such sick on 31st December 1934:—

CLASSIFICATION OF SICK IN INSTITUTIONS.

Classification of Wards.					Men	Women	Children under 16 years of age	Total
1.	Medical	...	...	...	44	31	--	75
2.	Surgical	...	...	...	19	13	—	32
3.	Chronic Sick*	...	...	...	20	31	—	51
4.	Children	...	...	...	—	—	62	62
5.	Venereal	...	...	...	—	3	—	3
6.	Tuberculosis	...	...	...	12	5	7	24
7.	Isolation	...	...	...	—	—	—	—
8.	Maternity	...	...	...	—	18	—	18
9.	Mental—							
	(a) Lunacy Act, 1890—							
	(i) Short Stay	...						
	(ii) Long Stay	...			30	17	—	47
	(b) Mental Treatment Act							
	(i) Voluntary	...						
	(ii) Temporary	...						
10.	Mental defectives	...	...	...	1	1	2	4
11.	Other	...	...	...	1	—	—	1
Totals ...					127	119	71	317

* Patients needing hospital treatment because they are suffering from some chronic disease; also aged infirm persons whose medical and nursing needs approximate to those of chronic patients.

DOMICILIARY MEDICAL ATTENDANCE.

The administration of medical out-relief included in the functions transferred to the Council on 1st April 1930 is controlled by the Public Assistance Committee acting through the Medical Officer of Health.

For this purpose the Borough remained divided into two districts, under the charge of The District Medical Officers transferred from the late West Derby Union, until it became clear towards the end of 1933 that the increasing demands on their services called for altered arrangements.

The average attendances weekly at the surgery at Cyprus Grove Relief Station had been 167, 221, and 239 in the fourth quarters of 1930-32 respectively, but the weekly average had risen in October 1933 to 334. An additional part-time District Medical Officer was accordingly appointed on a temporary basis, and took up duty on 12th February 1934.

Drugs and medical requisites for patients in Districts No. 1 and No. 2 continued to be dispensed at Cyprus Grove, but it was decided to institute a panel of chemists who would dispense drugs and medical requisites ordered by the District Medical Officer for the newly-created third District; satisfactory arrangements to effect this were made with local chemists and with the South-West Lancashire and Cheshire Joint (Prescriptions) Committee and came into force on 12th March 1934.

Examination of the returns of surgery consultations and home visits during the year showed the weekly average to have been 207 surgery consultations and 15 home visits in District No. 1, and 115 consultations and 13 visits in District No. 2, and 146 consultations and 10 visits in District No. 3. Towards the end of the year the rising volume of work again called for consideration, and the "open choice" system of providing domiciliary medical attendance on the sick in District No. 3 was carefully examined.

This open-choice system involves the appointment and employment of all local practitioners who signify their willingness to undertake the obligation of medical attendance for the sick poor on the Relieving Officer's orders in return for remuneration on an agreed basis. The sick person would choose his or her own doctor and would attend at the doctor's surgery, or be seen at the patient's own home, on the same footing as if payment were made privately or through National Health Insurance funds. The advantages of such a scheme include:—(a) immediate relief of the pressure on the district medical officers and saving of waiting time to patients; (b) exercise of the patient's own choice of doctor, reducing to a minimum the possibility of complaint

of inefficient service; (c) the possibility of medical attendance on the whole family being given by one practitioner, and that the practitioner chosen by the head of the family, and (d) the minimum of association between the giving of medical attendance and the relief of destitution.

After the experience of a year's working of this system in Newcastle-upon-Tyne, the Medical Officer of Health reported on the favourable reception given to the scheme by the recipients of medical relief, and, after referring to its general popularity, recorded his opinion that the open-choice method is a vast improvement on anything that the Public Assistance Committee patient has hitherto experienced. In addition the Health Committee, in its turn, could be satisfied that the system was bringing nearer the ideal of a general medical service capable of fulfilling all the needs of the community, or that part of it for which medical relief is provided by the Local Authority.

The Public Assistance Committee agreed in principle to the operation of such a scheme in District No. 3, but it was not found possible to reach agreement with representatives of the local medical practitioners as to the terms of service. Accordingly, the Committee decided in March 1935 to extend temporarily the times of attendance of the District Medical Officers at Cyprus Grove, and to make corresponding adjustments in their remuneration.

VACCINATION.

According to information supplied by the Vaccination Officer, 1,245 successful primary vaccinations and seven successful re-vaccinations were performed during the year ended 30th September 1934, as compared with the previous year's figures of 1,195 and one respectively.

Appendix 15 presents the Annual Return of the Vaccination Officer respecting vaccination of children whose births were registered from 1st January to 31st December 1933, inclusive.

III. SANITARY CIRCUMSTANCES.

Drainage and Sewerage.—The Sewerage System is entirely by discharge into the River Mersey, with drainage areas and outfalls as described in the Report for 1930.

Closet Accommodation and Scavenging.—Every house, with the exception of three in the outlying parts of Orrell, is provided with one water closet or more, the conversion of middens having been completed in 1910. Similarly all houses are provided with ashbins, the conversion of ashpits having been completed in 1932.

SANITARY INSPECTION OF THE DISTRICT.

The Staff for this work consists of the Chief Sanitary Inspector with four assistants, one of whom is engaged principally on special duties in connection with food inspection.

Nuisances.—On page 84 will be found a tabular statement showing the number of inspections made, and notices served by the Chief Sanitary Inspector. It will be noted that the number of nuisances for which notices were served on owners and occupiers was 4,796, as against 5,700 in 1933; the other work done under the Housing Acts is set out in the Housing Section of this report on pages 59 to 67.

Fertilizers and Feeding Stuffs Act, 1926.—No sample of fertilizers or feeding stuffs was obtained during the year.

Rag Flock Acts, 1911 and 1928.—There are no premises in the Borough where rag flock is manufactured, sold, or used.

Rats and Mice Destruction Act, 1919.—The occupiers of food shops, cafes, etc., have been frequently advised during the year as to the best means of ridding the premises of rats, and, in some cases, alterations of shops, and concreting of floors have been undertaken with excellent result. The official Rat Officer has been advised of all complaints received, to which he has given special attention, but it should be remembered, the fertility of the rat being what it is, that the usefulness of his services cannot be measured in terms of rats caught, and that his work is justified in so far as he ensures the exclusion of rats from places that matter, such as food-stores and dwelling-houses.

For National Rat Week in November advertisement of the fact of the responsibility of occupiers was inserted in the local Press, and requests were sent to horse keepers, millers, warehouse owners, etc., to make special efforts during the week, together with the circulation of a pamphlet giving suggestions as to suitable methods of ridding their premises of rats.

Common Lodging Houses.—There are four Common Lodging Houses in the Borough. They are all registered for the accommodation of men only, and between them have 168 beds. They were regularly inspected and a satisfactory standard of cleanliness was always maintained.

Canal Boats Acts, 1877 and 1884.—During the year 137 visits of inspection were made to canal boats on the Leeds and Liverpool Canal in the Borough. Written notices were served in respect of 6 boats for infringements of the Acts or Orders, and 16 defects were remedied after verbal caution had been given.

Verminous Infestation.—During the year the problem of the prevalence of infestation of dwellings by bed-bugs has received careful attention. Unfortunately, occupiers of bug infested premises are, generally speaking, disinclined to give any indication of the infestation until it has passed the stage when eradication is simple.

Routine inspection of corporation houses for verminous infestation was commenced in July, and 73 houses have since then been fumigated by sulphur, and the family bedding has been treated by steam disinfection.

In cases of heavy infestation of houses by bugs, wooden skirting boards, picture rails, and door architraves have been removed, and after fumigation the skirtings have been replaced by cement.

The re-inspection of fumigated houses is carried out at regular intervals, a period of three weeks being allowed to elapse between completion of fumigation and the first re-inspection; and the sulphur fumigation, using six pounds of sulphur per 1,000 cubic feet of room space, in conjunction with sustained effort on the part of the tenant has, so far, been found satisfactory.

Fumigation of furniture by means of hydrogen cyanide, together with steam disinfection of bedding, has proved to be highly efficient in the extermination of bugs and their eggs, and since December 12th, all furniture and bedding of families transferred from the Pleasant View Clearance Area and Millers' Bridge Improvement Area to new houses on the Corporation housing estates have been treated in this manner with excellent results.

Smoke Abatement.—Bootle is represented on the recently constituted West Lancashire and Cheshire Regional Smoke Abatement Committee, and one of the objects of this Committee is to bring about a more uniform administration of the law relating to the emission of smoke from chimneys.

Under Section 2 of the Public Health (Smoke Abatement) Act, 1926, a bye-law was made by the Council in December 1930 enacting that the emission of black smoke for a period of two minutes in the aggregate within any continuous period of thirty minutes from a chimney other than a dwelling house shall be presumed to be a nuisance.

There are approximately 79 industrial chimneys in the Borough, to which some 87 boilers of all types are connected. In eleven instances mechanical stokers of modern design are fitted, and in four instances oil fuel is in regular use; in addition there are some twelve furnaces used for metal smelting.

During the year 67 observations of chimneys were made, and in 10 instances smoke was noted as emitted in excessive quantities; in each case the premises were visited by the inspector, who investigated the cause and advised as to prevention. Intimation notices were also served, and in one case a statutory notice was served.

IV. SANITARY CONTROL OF THE FOOD SUPPLY.

One of the Sanitary Inspectors holding the special Food Certificate of the Royal Sanitary Institute is engaged for the greater part of his time on work connected with the food supply, the sanitary supervision of which is undertaken in order to secure cleanliness in the preparation and distribution of foodstuffs, and to diminish the risk of possible infection thereof with disease-producing bacteria.

MILK SUPPLY.

Source of Milk Supply.—That portion of the milk supply of the Borough not brought by rail or road is derived from cows kept in shippens, of which there are now 18 in the town; the cows number approximately 285, a decrease from the pre-war figure of about 550.

All the shippens received the careful attention of the Inspector, who paid 189 visits to them during the year. It is estimated that about one-quarter of the Bootle milk supply is derived from cows kept in these town shippens.

Dairies and Cowsheds.—Milk and Dairies Orders 1915 and 1926.—There are 68 premises registered as dairies or milkshops in the Borough, and 18 premises registered as cow-sheds. A careful routine inspection is maintained by the Inspector working in collaboration with the Veterinary Officer. Four hundred and ninety-nine visits of inspection were made to cowsheds and dairies during the year, and in many cases as a result of suggestions made and advice given alterations were carried out with resulting improvement in condition; on the whole it may be said that these premises are maintained in a satisfactory state.

Bacteriological Examination of Milk.—It may be recalled that the Ministry of Health has recognised certain grades of milk, and has prescribed bacteriological standards, which have to be complied with. The recognised grades in order of safety as regards cleanliness and freedom from tuberculous infection are "Certified," "Grade A (tuberculin tested)," and "Grade A," and although there are in Bootle no dairy-men holding licences to produce any of these designated milks, such are easily obtainable by purchasers willing to pay the higher price; for several years past a portion of the supply at the Isolation Hospital has been taken in the form of "Grade A (tuberculin tested)," and there is a small demand for the same clean and safe milk on the part of private customers.

With the object of promoting the cleanliness and safety of the local supply, bacteriological examination of samples has been continued, 91 milks having been examined, and the results obtained in 67 samples of milk other than pasteurised may be summarised thus. In 13 instances the standard of "Certified" milk and in 21 instances that of "Grade A" milk was reached; only in ten instances was the milk considered to be really dirty, and the general results show a gratifying improvement since the beginning of systematic bacteriological examinations in 1924. The following table illustrates this progress; the "very satisfactory" correspond to "Certified" standard, the "satisfactory" to "Grade A" standard, whilst the "very dirty" represent milks in which the *Bacillus Coli* was present in 1/10,000 e.e. or in which the total bacterial count exceeded 2,000,000 per e.c.

CLEANLINESS OF MILK.

Year	No. of Samples.	Percentage of Samples			
		Very satisfactory	Satisfactory	Dirty	Very dirty
1924	12	—	—	25	75
1925	28	4	7	43	46
1926	28	25	18	25	32
1927	30	23	13	28	36
1928	32	16	19	40	25
1929	32	28	28	31	13
1930	34	24	32	29	15
1931	44	34	27	28	11
1932	37	32	19	36	13
1933	47	17	26	32	25
1934	67	20	31	34	15

Milk and Tuberculosis.—The results of animal inoculation of 87 samples of milk during the year showed that all were free from tubercle bacilli.

Pasteurised Milk.—The Chief Medical Officer of the Ministry of Health has remarked that the widespread contamination of milk with the organisms of tuberculosis and undulant fever makes it impossible to recommend unreservedly this excellent food unless it has been made safe by efficient pasteurisation or boiling. With a growing public appreciation of this position, one foresees a greater use of pasteurisation in the milk supply of towns, but the difficulty here, as well as in a number of other areas, is that milk producers or distributors apply some form of heat treatment to their milk in order to prolong its keeping qualities, without submitting themselves to the official control which precedes and follows the possession of a licence to sell milk under the official designation of "pasteurised." During 1933 in Bootle there was only one holder of such a licence, and during the year six samples of this producer's milk were taken for bacteriological examination; three conformed to the requirements of the Ministry of Health.

The scheme of milk supply to school children by the Education Committee requires the milk to have been pasteurised, and the bacteriological examination of 21 samples of this school milk showed that the official standards were being reached in 15 cases.

PREPARATION OF ICE CREAM.

Bootle Corporation Act, 1930, Section 21, requires the registration of persons and premises used for the manufacture, etc., of ice cream, and gives powers for revocation of the registration of such persons if the Corporation is satisfied that the public health is, or is likely to be, endangered by any act or default of such persons.

At the end of the year the registrations totalled:—

PREMISES—

For the manufacture for sale and sale of ice cream ...	...	66
For the sale only of ice cream ..	... ..	59

PERSONS—

For the manufacture for sale and sale of ice cream ...	...	66
For the sale only of ice cream ...	... ..	64

These special powers of supervision were obtained because of the necessity of ensuring the wholesomeness of milk products eaten largely by children, and during last season 154 visits of inspection were made to registered premises, and 15 samples were obtained and submitted for bacteriological examination as affording the most reliable index of the degree of cleanliness reached in the production of the ice cream. The following table sets out the not very satisfactory results of such examinations.

CLEANLINESS OF ICE CREAM.

Sample No.	B. Coli present in:—	Bacteria per c.c.	Source of Supply.
12.	—	8,000	Large manufacturer.
3.	1 c.c.	104,000	Do.
13.	1/10 c.c.	64,000	Do.
4.	1/10 c.c.	212,000	Dairy.
14.	1/100 c.c.	44,000	Large manufacturer.
15.	1/100 c.c.	144,000	Small general shop.
8.	1/100 c.c.	264,000	Do.
7.	1/1,000 c.c.	212,000	Do.
6.	1/1,000 c.c.	1,080,000	Large manufacturer.
11.	1/10,000 c.c.	102,000	Small general shop.
2.	1/10,000 c.c.	340,000	Large manufacturer.
9.	1/10,000 c.c.	1,000,000	Dairy.
1.	1/10,000 c.c.	6,500,000	Large manufacturer.
10.	1/100,000 c.c.	456,000	Dairy.
5.	1/100,000 c.c.	1,050,000	Small general shop.

MEAT AND OTHER FOODS.

Butchers' Shops.—There is no slaughterhouse in the Borough, and the inspection of meat is confined to butchers' shops, food factories and cold stores. There were 92 butchers' shops, to which 1,179 visits of inspection were made during the year. On six occasions unsound and diseased meat was found in shops and food factories; the bulk of the diseased meat had been previously inspected outside the Borough, in which cases the authorities concerned were notified. In general the standard of cleanliness of butchers' shops in the Borough is high.

Public Health (Meat) Regulations, 1924.—It was necessary on 22 occasions to warn tradesmen respecting contraventions of the Regulations. Frequent visits of inspection are made to shops and premises, and vehicles containing meat are regularly inspected for general cleanliness.

Public Health Act, 1925.—Under Section 72, which provides for the cleanliness and sanitary conditions of premises where food is prepared or stored for sale it was necessary on six occasions to serve notices on occupiers of premises in respect of unsatisfactory conditions.

Sale of Food (Labelling) Order, 1921.—This Order provides for the marking of any imported meat as such, or else for an indication of the country of origin, e.g., New Zealand, and is a safeguard for the buying public inasmuch as home killed and imported frozen or chilled meats are appropriately marked. On 51 occasions warnings were issued respecting contraventions of this Order.

Merchandise Marks Act, 1926.—The Act provides for the marking of imported foodstuffs (fresh apples, butter, currants, raisins, sultanas, eggs, raw tomatoes, and honey). Some 269 visits of inspection were made under this Act, and except in comparatively few instances the origin of the produce was found to be indicated.

Fishmongers' Shops.—There are 41 shops in the Borough from which fresh fish is sold, and 97 visits of inspection were made during the year. These shops are maintained in satisfactory condition.

Fish Frying Shops.—The trade of fish frying is carried on at 59 shops, to which 41 visits of inspection were made during the year. Suggestions were made from time to time to occupiers regarding methods of preparation, installation of ranges, etc., and considerable improvement resulted, and although there are no bye-laws in force in the Borough with respect to these premises, they are maintained in a satisfactory condition.

Disposal of Unsound Food.—The amount of unsound food detected is shown in the table below; all was voluntarily surrendered.

					Tons.	Cwts.	Qrs.	Lbs.
Meat	...	...	...	...	—	17	0	23
Meat, canned	...	...	...	...	2	4	2	22
Fruit and Vegetables	...	...	...	...	—	2	0	20
Fruit and Vegetables, canned	...	...	...	...	2	9	0	12
Condensed Milk	...	...	...	...	2	6	2	8
Jam	...	...	...	...	—	2	1	5
Butter	...	...	...	...	—	—	—	15
Fish, canned	...	...	...	...	—	1	3	15
Total ...					8	4	0	8

Several methods of disposal of unsound food were utilised. For the greater part, however, butchers' meat was destroyed under the supervision of the Inspector at the Corporation Destructor, Pine Grove. A proportion of canned meat was permitted to be used, under supervision, for the preparation of animal food, whilst the remainder was used for pig feeding at three of the piggeries in the Borough; the deliveries were checked on arrival, and the Inspector saw that they were so disposed of as to make it impossible for this food to be used for human consumption.

Food Factories.—There are 16 food factories in the Borough and a systematic inspection is carried out, 293 visits of inspection having been made during the year. Although maintained in a very satisfactory condition, on occasion warnings were given respecting lack of cleanli-

ness of the premises. 46 premises are now registered under the Bootle Corporation Act, 1920 as used for the preparation of potted or preserved foods.

Bakehouses.—There are 18 bakehouses (6 being underground) and 22 confectionery bakehouses. 120 visits of inspection were made during the year. The general condition is good.

Cold Stores.—These premises are regularly inspected and are maintained in satisfactory condition; 38 visits were made. One of the stores is a Registered Egg Store, but no marking of shell eggs under the Ministry of Agriculture's Regulations was undertaken during the year.

Food and Drugs (Adulteration) Act, 1928—The Public Analyst, to whom samples are submitted, is Mr. W. H. Roberts, M.Sc., F.I.C.

Table 9 on page 88 shows that 240 samples were taken, of which 18, or 7·5 per cent., were adulterated or not up to standard. One hundred and sixty-one of these were taken informally, and in cases where adulteration was detected formal samples were subsequently obtained in order that the necessary legal action might be instituted. One hundred and twenty-five samples of milk were obtained, of which 47 were taken informally; in the other 78 cases, however, the procedure prescribed by the Act was adopted. Eleven of the milk samples (all formal) were found to be adulterated.

Eight of the eleven milk samples not up to standard were of milk produced outside the district. The total number of samples obtained of milk produced outside the district and taken in course of delivery was 60.

As regards the eleven milk samples reported upon adversely, legal proceedings were instituted in one instance for selling milk with a deficiency in milk fat of 6 per cent., and the vendor was fined 10s. with £1 1s. costs; and in the remaining ten the adulteration was only slight and the vendors were cautioned.

The Public Analyst has kindly supplied the results of the analyses of every sample of milk submitted to him from Bootle, and it is interesting to note that, including the samples returned "not

genuine," the average amount of fat was 3·77 per cent., and of non-fatty solids 8·91 per cent., the minimum standard fixed by the Board of Agriculture in the Sale of Milk Regulations, 1901, being 3 per cent. fat and 8·5 per cent. non-fatty solids, below which figures milk is presumed to be not genuine.

Ten samples of condensed milk were submitted to the Analyst, who certified that they were all genuine and correctly labelled as provided by the Public Health (Condensed Milk) Regulations, 1923-1927.

Legal proceedings were taken in respect of a sample of olive oil which on analysis was found to be 90 per cent. peanut oil, and the vendor was fined 10s. 0d. with £1 1s. costs.

Public Health (Preservatives, etc., in Food) Regulations, 1925-1927.—A reference to the table on page 89 shows that 201 samples were examined under these Regulations for the presence of preservatives, including 125 of milk and 3 of cream.

One vendor was cautioned for not exhibiting statutory labels declaring the presence in sausages of a preservative which was found to be present.

One manufacturer was cautioned in respect of excess preservatives found to be present in samples of orange wine and ginger wine, and a second manufacturer also was cautioned in respect of exceeding the amount of preservative in jam as allowed by the Regulations.

V. PREVALENCE OF NOTIFIABLE DISEASES.

Zymotic Diseases.—During the year there were 80 deaths from the seven principal zymotic diseases, viz., small pox, measles, whooping cough, diphtheria, scarlet fever, diarrhoea, and fever (including typhoid, enteric, and typhus). This is a death rate of 1·04 per 1,000 of the population; it compares with a decennial rate for 1924-33 of 0·95.

The number of cases of infectious diseases notified during the year is briefly summarised below, and fuller detail is given in Table 2, page 70.

There was no notification of small pox, cholera, plague, typhus fever, relapsing or continued fever, trench fever, or malaria.

				Cases notified.	Cases admitted to hospital.	Deaths.
Typhoid Fever	...	...	...	1	1	—
Diphtheria	...	...	...	293	287	36
Scarlet Fever	...	...	...	280	190	2
Puerperal Fever	...	...	...	4	4	3
Puerperal Pyrexia	...	...	...	39	36	4
Ophthalmia Neonatorum	...	...	...	19	7	—
Erysipelas	...	...	...	63	34	4
Infantile Diarrhoea (under two years)—voluntarily notifiable ..				26	2	14
Influenzal Pneumonia	...	...	...	17	5	—
Acute Primary Pneumonia	...	...	...	236	137	54
Cerebro-spinal Meningitis	...	...	...	4	4	—
Polio-myelitis	...	...	...	2	1	—
Dysentery	...	...	...	1	1	—
Encephalitis Lethargica	...	...	...	3	2	—
Tuberculosis—						
(a) Pulmonary	...	...	...	173	110	90
(b) Non-Pulmonary	...	...	...	70	26	16

SCARLET FEVER.

Incidence.—Two hundred and eighty cases were notified, being a rate of 3·63 per 1,000 of the estimated population, compared with 8·73 in 1933 and 2·93 in 1932; and a rate of 3·76 per 1,000 for England and Wales. The total of notifications showed a large decrease from the experience of 1933, which year had seen the largest outbreak since 1894. There were two deaths from scarlet fever during the year; this is equivalent to a mortality rate of 0·03 per 1,000 of the population, as compared with 0·02 per 1,000 for England and Wales. The Table below shows that Bootle, in common with other areas in South West Lancashire, has usually returned higher scarlet fever mortality-rates than the country as a whole, although the experience of the last two years is equivalent to a reduction to one-twelfth of the rate obtaining at the end of last century.

Period.	BOOTLE.		England & Wales.
	No. of Deaths.	Rate per 1,000.	Rate per 1,000.
1891-1900 ..	202	0·37	0·16
1901-1910 ..	160	0·25	0·11
1911-1920 ...	70	0·11	0·05
1921-1925 ...	36	0·09	0·03
1926-1930 ..	22	0·05	0·01
1931 ...	1	0·01	0·01
1932 ...	5	0·06	0·01
1933 ...	2	0·03	0·02
1934 ...	2	0·03	0·02

In each of 26 houses two cases of scarlet fever occurred, and in 6 houses there were three cases.

Hospital Isolation in Scarlet Fever. — One hundred and ninety Bootle cases, or 65 per cent. of the cases notified, were admitted to Linacre Hospital, with two deaths.

In the last Annual Report attention was drawn to the opinions expressed in a report issued by the Ministry of Health in 1927, in which it was pointed out that at the present time a large percentage of scarlet fever cases are sent to hospital not primarily in the interests of public health, nor in many cases particularly in the clinical interests of the patient, but largely on sociological and compassionate grounds. This question has been further dealt with in the Annual Report of the Chief Medical Officer of the Ministry for the year 1933, which draws attention to recent work on the serological reactions of the organism associated with scarlet fever, and points out that the indiscriminate removal of all scarlet fever patients is not merely unnecessary on medical grounds, but is often unwise through the possibilities of cross-infection in scarlet fever wards. The report expresses the opinion that the time has now come not only for insisting that a large number of clinically typical scarlet fever patients should be nursed at home, but for maintaining that a scarlatiniform rash should no longer be considered in itself a justification for immediate removal to hospital.

Use of Scarlatinal (Anti-Streptococcal) Antitoxin. — Dr. Hannah reports that of 253 cases treated to a termination during the year, 26 received injections of scarlet-fever anti-streptococcal serum. There were two deaths, neither of them in the anti-toxin series of cases.

DIPHTHERIA.

The increase in the number of notified cases of diphtheria first noted during 1927 was sustained during the year under review, during which 293 cases were notified, as against the average of 112 recorded for the ten years ended 1926. The incidence was 3·79 per 1,000 of the estimated population, and the case fatality was 12·3 per cent. Two hundred and eighty-seven cases, or 98 per cent. of those notified, were removed to hospital. Tracheotomy was performed in three instances during the year, and all cases recovered.

The occurrence of a secondary case of diphtheria in an infected household was recorded on twenty-five occasions, the occurrence of a third case on two occasions, and the occurrence of a fourth case on two occasions.

The table which follows demonstrates the gravity of the type of infection, due apparently to infection with a more virulent organism producing rapid and severe toxæmia; the local experience has been shared with a number of other areas.

Period.	BOOTLE.		England & Wales.
	No. of Deaths.	Rate per 1,000.	Rate per 1,000.
1891-1900 ...	136	0·24	0·32
1901-1910 ..	120	0·18	0·19
1911-1920 . .	132	0·18	0·14
1921-1925 . .	32	0·08	0·09
1926-1930 ...	39	0·09	0·08
1931 ...	14	0·18	0·07
1932 ...	13	0·17	0·06
1933 ...	21	0·27	0·06
1934 ...	36	0·46	0·10

Prevention of Diphtheria.—During 1932 a scheme was inaugurated whereby an offer of immunisation against diphtheria was made to the parents of infants and young children in the Borough. Such protection can be conferred without risk to the child and without any disturbance of health by the administration of three injections at, say, fortnightly intervals of a toxoid-antitoxin mixture which stimulates the body to produce immunity against subsequent exposures to infection; the immunity is not produced instantaneously, but increases steadily through a period of several weeks or months. It must of course be understood

that the protection is not absolute—even an undisputed clinical attack of diphtheria will not always confer complete immunity; in this connection it has been said that, although we use the words "immune" and "non-immune," we cannot divide our inoculated children into "blacks" and "whites"—there is every shade of intermediate grey.

The machinery adopted with the co-operation of the Education Committee was to send explanatory letters, with returnable forms of request for immunisation, to parents of children attending the Infants' Department.

During 1933 the first round of visits to the schools was completed, and the scheme is now being continued by extending the offer to parents of all new entrants. A second method of approach is afforded by making a similar offer of immunisation against diphtheria to parents of each child patient at Linacre Hospital with scarlet fever, and a third is obtained by the Health Visitors advocating it for children under school age in attendance at the Infant Clinics. In addition, there is growing a spontaneous demand on the part of individual parents for the protective inoculation of all their children.

The following tabular statement classifies the children who completed the series of inoculations during 1934, making, with those inoculated during 1932 and 1933, a total of 2,381.

Place of Treatment.				Total.
Elementary Schools	...	...	...	592
Infant Clinics	...	...	...	156
Linacre Hospital	...	...	...	51
Total				799

Hitherto, there have been 18 instances of diphtheria in inoculated children; particulars of four cases were given in the last annual report, and similar information as to 14 cases during 1934 is given below. It will be noted that, in spite of the clinical severity of cases during the present outbreak, which showed a fatality rate of 22 per cent., there were no deaths among the inoculated children, and only three cases of moderate severity.

Age.	Date of Notification.	Period between last inoculation and onset of illness.	Remarks.
8 years	13th March, 1934	40 weeks	Bacteriological case only; no clinical symptoms; no antitoxin given.
5 years	22nd March, 1934	18 weeks	Slight infection of throat only; no complications; very mild or only bacteriological case. 10,000 units antitoxin given.
5 years	2nd May, 1934	2 days	Clinical diphtheria of moderate severity; no complications; 20,000 units antitoxin given.
8 years	4th May, 1934	13 weeks	Clinical diphtheria of moderate severity; no complications; 30,000 units antitoxin given.
7 years	14th Sept., 1934	67 weeks	Very mild type.
8 years	18th Sept., 1934	15 weeks	Clinically a case of slight follicular tonsillitis; no antitoxin given.
5 years	5th Nov., 1934	105 weeks	Mild clinical diphtheria; no complications; 10,000 units given.
4 years	5th Nov., 1934	51 weeks	Very mild clinical diphtheria; no serum given; no general symptoms.
11 years	14th Nov., 1934	52 weeks	Clinically a case of follicular tonsillitis; 10,000 units serum given.
5½ years	21st Nov., 1934	58 weeks	Moderately severe diphtheria; no complications; 20,000 units serum given.
3 years	4th Nov., 1934	26 weeks	Bacteriological case only; 10,000 units serum given.
6 years	12th Dec., 1934	11 days	Mild clinical diphtheria with concurrent scarlet fever; 20,000 units serum given.
3 years	19th Dec., 1934	107 weeks	Mild clinical diphtheria; 10,000 units serum given.
9 years	9th Dec., 1934	78 weeks	Mild clinical diphtheria; 10,000 units given.

OTHER ZYMOTIC DISEASES.

Enteric Fever.—One patient was notified during the year as suffering from fever of the enteric group.

Influenza.—Seventeen notifications of influenzal pneumonia were received, and 12 deaths from influenza were recorded. These figures

are indicative of the freedom of the town from influenza in an epidemic form, except during the first weeks of the year.

Measles.—During 1934 measles caused 26 deaths, compared with 11 in 1933, and an average of 19·4 during the ten years ended 1933. The Bootle death-rate from this cause was 0·34 per 1,000, compared with 0·09 throughout England and Wales.

Complete information as to the incidence of measles is not now available, but during the year 514 cases occurring in school children were reported under the Bootle Corporation Act, 1920.

The sanitary measures for the control of measles on the accepted lines of notification, isolation, disinfection and quarantining of contacts, are disappointing inasmuch as cases are infectious in their early catarrhal stage before the disease is recognised as measles, and Public Health activity is accordingly limited to such steps as will postpone the age of attack (and hence diminish the case fatality rate), and to the provision of nursing assistance in cases where serious lung complications supervene; the contemplated extension of Linacre Hospital will be of service in this connection, inasmuch as it will then be possible to admit some, at least, of the cases of measles in children under the age of three years, after which age the fatality rate shows an appreciable fall.

The table which follows sets out the reduction in the mortality from measles which has occurred throughout England and Wales since 1890; it also shows that although some degree of reduction has been obtained locally the measles death rate for Bootle is still high, and comparison with the corresponding tables for scarlet fever and diphtheria demonstrates the greater importance of measles as a killing disease.

Period.	BOOTLE.		England & Wales
	No. of Deaths.	Rate per 1,000.	Rate per 1,000.
1891-1900 . .	165	0·30	0·41
1901-1910 ...	294	0·45	0·31
1911-1920 ...	266	0·37	0·28
1921-1925 .	112	0·27	0·12
1926-1930 ...	85	0·20	0·10
1931 ...	13	0·17	0·08
1932 ...	40	0·52	0·08
1933 ...	11	0·14	0·05
1934 ...	26	0·34	0·09

Whooping Cough.—Whooping Cough caused 2 deaths during 1934 compared with 13 in 1933 and 16 in 1932. The death-rate was 0·03 per 1,000 of the population, compared with 0·05 throughout England and Wales. There is still much to be done in educating the public up to the knowledge of the fact that measles and whooping cough (so-called minor infectious diseases) are responsible year by year for many preventable deaths.

Diarrhoea.—Deaths from this disease numbered 14, or a rate of 0·18 per 1,000 of the population as compared with 0·46 last year. Eleven of the deaths occurred in children under the age of two years, giving a rate per 1,000 births of 6·7 in Bootle, as compared with 5·5 throughout England and Wales.

The arrangements instituted in previous years by which this disease is notifiable during the third quarter of the year were continued, and 26 notifications were received, as compared with 71 in 1933 and 43 in 1932. The receipt of these notifications enabled instruction on the necessary sanitary precautions against the spread of infection to be given by the Infant Welfare Visitors, as well as nursing attention to be given by the Bootle District Nurses' Association.

LINACRE ISOLATION HOSPITAL.

Linacre Isolation Hospital, by arrangements with the respective Authorities, receives cases of infectious diseases from the urban districts of Litherland and Formby, as well as from the borough.

The year 1934 showed a decrease in cases admitted, the total being 572 as against 745 in 1933. The following table gives particulars of the cases admitted to the infectious disease wards, while particulars of cases in which the diagnosis was revised are given in Appendix 16, page 95.

Proposals are under consideration for increasing the infectious disease accommodation of the Hospital either by the erection of a 28-bed pavilion, together with accommodation for the necessary additional nursing and domestic staff, or by the release of the tuberculosis pavilion and the provision of alternative accommodation for the tuberculosis patients.

CASES TREATED IN THE INFECTIOUS DISEASE WARDS, LINACRE HOSPITAL.

DISEASE.	No. in hospital on 1st. January 1934.				No. admitted during the year.				No. discharged during the year				No. died during the year.				No. remaining in hospital 31st. December 1934			
	Bootle	Lither-land	Formby	Total	Bootle	Lither-land	Formby	Total	Bootle	Lither-land	Formby	Total	Bootle	Lither-land	Formby	Total	Bootle	Lither-land	Formby	Total
Scarlet Fever.	43	13	—	56	161	35	1	197	190	48	—	238	2	—	—	2	12	—	1	13
Scarlet Fever complicated by other disease.	—	1	—	1	7	1	—	8	5	2	—	7	—	—	—	—	2	—	—	2
Admitted as Scarlet Fever but diagnosis revised.	1	—	—	1	22	7	1	30	23	7	1	31	—	—	—	—	—	—	—	—
Diphtheria.	16	1	—	17	233	35	2	270	163	24	1	188	36	6	1	43	50	6	—	56
Diphtheria complicated by other disease.	1	—	—	1	2	—	—	2	2	—	—	2	—	—	—	—	1	—	—	1
Admitted as Diphtheria but diagnosis revised.	1	1	—	2	52	9	2	63	51	8	2	61	*1	2	—	3	1	—	—	1
Other diseases	—	—	—	—	2	—	—	2	2	—	—	2	—	—	—	—	—	—	—	—
TOTALS	62	16	—	78	479	87	6	572	436	89	4	529	39	8	1	48	66	6	1	73

Tracheotomy was performed on three cases—all recovered.

* Liverpool case.

Return Cases.—During 1934 there were 4 instances in which the discharge of scarlet fever cases from the hospital was followed by the recurrence of a new case or cases in the home. The return case rate was equivalent to 1·8 per cent. of those discharged as compared with 3·3 per cent. in 1933. The isolation periods of the patients giving rise to return cases varied from 26 to 35 days, with an average of 29; and intervals between discharge and the onset of the second case were 3 to 10 days, with an average of 6.

Cross Infection.—The following cases of cross infection arose during the year. Four cases admitted as scarlet fever, but not suffering from it, contracted scarlet fever; one case admitted as scarlet fever, but not suffering from it, contracted scarlet fever and measles; 4 cases of scarlet fever contracted diphtheria; 3 cases of scarlet fever developed chicken-pox; one case of scarlet fever developed chickenpox and diphtheria; and 4 cases of diphtheria developed scarlet fever.

Health of Staff.—Staff sickness was as follows during the year. One nurse contracted influenza and was warded for 23 days; 1 nurse contracted rheumatism, and was warded 40 days; 1 nurse contracted septic bursitis and was warded 28 days; and 1 maid contracted diphtheria and was warded for 70 days. Further, one sister was off duty for three weeks while a diphtheria carrier.

During the year nine nurses were Schick-tested and Dick-tested to determine their susceptibility to diphtheria and scarlet fever. Of these, two re-acted positively to the Schick-test and one re-acted positively to the Dick-test; all were immunised.

Bacteriological Laboratory Work—

Examinations required.	Positive result	Negative result.	No. of Specimens examined.
Swabs for Diphtheria ...	627	4450	5077
Sputa for Tubercle Bacilli	285	672	957
	<hr/> 912	<hr/> 5122	<hr/> 6034

In addition, 91 samples of milk, 602 specimens for venereal disease, and 65 miscellaneous specimens (including 15 of ice cream) were examined by Professor Beattie in the Pathological Department of the Liverpool University.

VI. TUBERCULOSIS.

Notification Register.—The Tuberculosis Notification Register contains the names of all persons notified as suffering from tuberculosis since the first operation of the Public Health (Tuberculosis) Regulations, 1911, after making corrections by the removal of names of those who have died, left the district, have been cured, or have been pronounced not to be suffering from tuberculosis. The register on 31st December included 302 males and 278 females suffering from pulmonary tuberculosis, and 142 males and 162 females suffering from non-pulmonary tuberculosis, making a total of 884 cases.

New Cases.—The total number of new cases coming to the knowledge of the Medical Officer of Health during 1934 was 258, as compared with the figures of 246, 242, 212, and 251 in the years from 1930 onwards.

Deaths.—The number of deaths caused by tuberculosis during 1933 was 106, or one death in every nine, giving a death-rate from this cause of 1·37 per 1,000 of the population, as compared with 1·50 in 1932 and 1·32 in 1931; it was 1·41 for the ten years ended 1933.

This represents a resumption of the decline in the tuberculosis mortality-rate recently recorded in Bootle, and set out in the following table:—

Period.	BOOTLE.		England & Wales.
	No. of Deaths.	Rate per 1,000.	Rate per 1,000.
1891-1900 ...	1106	2·17	2·01
1901-1910 ...	1127	1·76	1·65
1911-1920 ...	1370	1·82	1·42
1921-1925 ...	652	1·70	1·08
1926-1930 ...	572	1·49	0·94
1931 ...	123	1·59	0·89
1932 ...	102	1·34	0·84
1933 ..	116	1·50	0·82
1934 ...	106	1·37	0·76

From the above table it may be calculated that in the last four years the deaths from tuberculosis in Bootle have been 221 less than would have been the case if the mortality rate experienced in 1891-1900 had continued.

Areas with high Tuberculosis Mortality.—The following table sets out the twelve County Boroughs returning the highest tuberculosis death-rates in 1932, and the association with the casual nature of the employment prevailing in most of those areas is significant.

DEATHS PER 1,000 OF THE POPULATION FROM ALL FORMS OF TUBERCULOSIS, 1932.				
South Shields	...	1·91	Cardiff	...
Gateshead	...	1·59	Worcester	...
Middlesbrough	...	1·51	Sunderland	...
Tynemouth	...	1·43	Merthyr Tydfil	...
BOOTLE	...	1·34	Southampton	...
Liverpool	...	1·32	Newcastle-on-Tyne	...
England and Wales - 0·84.				

Dispensary Register.—A register is maintained of all cases of tuberculosis receiving public medical treatment. This Dispensary Register contains the names of all persons attending at, or seen in connection with, the Dispensary for diagnosis or for treatment of tuberculosis, including patients under general supervision (whether or not accompanied by domiciliary treatment), and patients or observation cases in residential institutions, and contacts. On December 31st 1934 the number of persons so classified and on the register was 658, as against 673 on January 1st 1934.

PULMONARY TUBERCULOSIS.

Incidence. — One hundred and seventy-three new cases suffering from pulmonary tuberculosis came to the knowledge of the Medical Officer of Health during 1934. The age and sex distribution of the patients will be found in the return on pages 82 and 83. The number includes 31 cases not formally notified. The numbers notified in the four preceding years were 189, 184, 154, and 173 respectively. In the case of eight the first intimation was obtained from the death returns, while in 23 other cases notification was made at intervals of less than three months before death. The non-notified deaths, therefore, numbered 8·9 per cent. of the total of 90 deaths from pulmonary tuberculosis. Enquiry into these non-notified cases showed the omission to have been on the part of institution medical officers in five instances, and private practitioners in three instances.

Deaths.—During the year 90 deaths were certified to be due to pulmonary tuberculosis, representing a rate of 1·17 per 1,000 of the population, as compared with 1·33 in 1933 and 1·12 in 1932. The age period most affected was early adult life with 38 deaths between the ages of 15 and 35, and the usual sex disparity was shown, there having been 57 deaths among males and 33 among females.

Tuberculosis Visitors: Home Visitation.—Four tuberculosis visitors, one of whom assists in the medical work of the Dispensary, and three of whom are engaged also on work in connection with Maternity and Child Welfare, are responsible for the sanitary supervision of the homes of notified and suspected cases. Every effort is made by the Visitors to make their calls helpful to the comfort of the patient and a stimulus to the care exercised in preventing infection of others in the household. The visits totalled 2,240 (1,642 of which were for dispensary purposes) in the year under review.

Tuberculosis Dispensary.—The Dispensary is the central element of the tuberculosis scheme, and serves as a clearing house from which some cases are transferred to sanatorium, others to hospital, and others to their own medical attendant for domiciliary treatment, while a certain proportion remain in attendance at the Clinics held five times weekly and receive necessary treatment therefrom. As far as possible, however, this last aspect of the functions of the Dispensary is limited to the provision of specialist treatment not at the disposal of the general practitioner.

During the year 258 new cases, of whom 78 were sent by private practitioners, 24 by the Public Assistance Committee, 12 by the Ante-Natal Clinic Medical Officer, and 41 by the School Medical Officer for opinion preliminary to notification, were examined at the Dispensary. Inasmuch as it is essential to regard the family rather than the individual as the unit for investigation, treatment and care, attention continued to be paid to securing the attendance for examination of contacts of notified cases, and during the year 131 were so examined.

The total attendances at the Dispensary during the year numbered 6,561, as compared with 6,438 in 1933; 670 specimens of sputum were examined, giving a positive result in 67 cases.

Radiographic Examinations.—The installation of an X-Ray apparatus at the Health Centre was completed in June, and, since that date increasing use has been made of radiography in diagnosis and control

of treatment; thus, during the time when eases were sent to outside institutions for X-Ray examination the figures, which had commenced at 2 examinations per 100 eases and contacts in 1926, rose to 45 during 1933. During the first few months of 1934 outside institutions were used for eases, but with the possession of an apparatus under the Tuberculosis Officer's own control, 196 examinations were made during the remaining months of the year with the result that the number of examinations per 100 eases and contacts rose to 78.

X-Ray examinations are used as an aid to diagnosis in all new cases and contacts in which there are any suspicious clinical signs or symptoms; in undoubted cases of pulmonary tuberculosis with a view to determining more exactly the extent of the disease, or its progress under treatment; and also in the control of eases treated by artificial pneumothorax treatment.

Maghull Sanatorium.—During the year 43 patients were admitted to the Institution with an average length of stay of 133 days for the 45 eases discharged during the year. Information is given in Section (G) on Form T.145 of the Ministry of Health on pages 73 to 77 of the results of treatment in Maghull Sanatorium and Linaere Hospital during the year.

Linaere Hospital Tuberculosis Pavilion.—During 1934, 66 Bootle eases were admitted to the Pavilion, the average length of stay of the 56 eases discharged (including 11 deaths) during the year being 131 days.

Artificial Pneumo-Thorax Treatment.—Treatment by induction of artificial pneumo-thorax, in order to secure collapse of the affected lung, was adopted at Linaere Hospital first in 1924, in eases which show unilateral disease, or in which with fairly extensive lesions in one lung there are signs of only slight and probably inactive disease in the other; eases of even unilateral disease, however, in which the lesions are of old standing and fibrotic in type are not as a rule considered suitable, even in the rare instances where an artificial pneumo-thorax can be induced, nor are eases in patients over 50 years of age. Before proceeding to artificial pneumo-thorax the effect of a short period of sanatorium or hospital treatment is usually tried.

Seventeen cases have so far been considered suitable for this treatment. Five of the cases have died, and a tabular statement gives the results of treatment in the other cases.

RESULTS OF ARTIFICIAL PNEUMOTHORAX TREATMENT.

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Number.	Beginning of treatment	Cessation of treatment	Length of treatment	Other treatment given	Condition to date	Time since treatment ceased
1.	2/5/24	5/12/24	7 months	Hospital.	Not examined recently; known to be working	10 years
2.	18/7/25	25/4/27	21 months	Hospital	Not examined recently; known to be working	7½ years
4.	11/12/26	—	6 years	Sanatorium	Still under treatment in Sanatorium	—
5.	19/12/28	28/11/31	3 years	Sanatorium and Hospital	Disease still active; unfit for work.	3 years
6.	18/10/29	9/1/32	27 months	Hospital	Condition arrested.	3 years
8.	17/9/30	9/1/32	16 months	Hospital	Left district.	3 years
10.	11/11/32	17/3/34	16 months	Hospital	Chest condition quiescent, and he has been working, except for an attack of appendicitis in April, 1934, and operation for it.	8 months
13.	2/5/33	7/2/34	9 months	Hospital	Disease of chronic type; still active.	9 months
14.	27/7/33	1/9/34	13 months	Hospital	Much improved.	4 months
15.	27/3/34	—	—	Hospital	Previously treated in Broadgreen Sanatorium since 3rd May, 1933. Treatment being continued.	—
16.	28/4/34	—	—	Hospital	General condition satisfactory. Treatment being continued.	—
17.	21/12/34	—	—	—	Pneumothorax initiated in Benenden Sanatorium, 7th April, 1934. Treatment being continued. Working.	—

NON-PULMONARY TUBERCULOSIS.

During the year 70 new cases of non-pulmonary tuberculosis were notified, as compared with 65 in 1933, namely:—33 glands, 16 bones and joints, 9 meningitis, 8 abdominal, 2 abscesses, 1 lupus and 1 pericarditis; and there were 16 deaths registered. The agreement with the Leasowe Hospital for Children for the maintenance of beds for children suffering from non-pulmonary tuberculosis remained in force, and eleven cases were admitted during the year; thirteen cases were discharged, one died, and seven cases were still in the Hospital at the end of the year.

The scheme for admission to general or special hospitals of cases of non-pulmonary tuberculosis, and for payment by the Council of the charges for maintenance and treatment in cases recommended or approved by the Tuberculosis Officer, was continued; during the year twenty-two such patients were admitted.

Dental Treatment.—During the year eight cases received dental treatment.

Public Health (Prevention of Tuberculosis) Regulations, 1925.—No action was taken under the above Regulations relating to tuberculous employees in the milk trade.

Public Health Act, 1925, Section 62.—No action was taken under this Section dealing with the compulsory removal of cases of tuberculosis to hospital.

ARTIFICIAL LIGHT TREATMENT.

The scheme of artificial light treatment by exposure of patients to general irradiation from carbon arc lamps, which was commenced in October 1925, was continued during the year. The staff, plant and working method were as described in previous reports.

The operation time was approximately 315 hours for the carbon arcs and 50 hours for the mercury vapour lamp. The attendances made by patients totalled 2,784, of which 534 were made by patients referred under the Tuberculosis Scheme and 2,250 by patients referred under the Maternity and Child Welfare Scheme,

The attached tabular statement classifies conditions for which treatment was administered and the results obtained in the period under review.

RESULTS OF ARTIFICIAL LIGHT TREATMENT.

(a) TUBERCULOSIS.

	Under Treatment 1st Jan., 1934	New Cases	Discharged			Ceased to attend	Under treatment, 31st Dec. 1934
			Much Improved	Im-proved	Station-ary		
Tubercular Cervical Glands... ..	7	4	4	1	—	2	4
Tuberculosis of Bones	1	—	—	—	—	—	1
Lupus	3	1	1	—	—	—	3
Abdominal Tuberculosis	—	1	1	—	—	—	—

(b) MATERNITY AND CHILD WELFARE.

	Under Treatment 1st Jan. 1934	New Cases	Discharged			Ceased to attend	Under treatment 31st Dec. 1934
			Much Improved	Im-proved	Station-ary		
Rickets	14	68	2	37	2	18	23
Debility	2	13	—	11	—	2	2
Malnutrition	2	17	—	11	1	2	5
Totals ...	29	104	8	60	3	24	38

VII. VENEREAL DISEASES.

The Council's scheme for the treatment and control of venereal diseases provides for the maintenance of a treatment centre at the Bootle General Hospital, and for the conduct of pathological examinations at the University of Liverpool. In addition payment is made for services rendered to Bootle residents attending the venereal diseases treatment centres of the Liverpool City Council. At the Council's Bootle Hospital treatment centre four clinics for men and two clinics for women and children are held weekly.

The Annual Statistical Report of the Medical Officer of the Treatment Centre will be found on pages 90 to 92. It shows 397 persons under treatment on 31st December 1934, as against 380 on 1st January 1934, and a decrease in new cases, the figures being 309 as contrasted with 325 in 1933.

The total attendances for treatment made at the centre during the year show a small decrease from 15,769 to 15,651; the figure includes 4,035 attendances made between clinic days for the treatment of gonorrhoea at the irrigation centre. The average attendance at the male clinics was 70·3, and at the female clinics was 14·1. In-patient days totalled 676 as against 569 during the previous year. During 1934 136 cases were discharged on completion of treatment and observation, as contrasted with 107 during 1933, and 116 during 1932.

The Table below is a statement of the number of cases presenting themselves for treatment during the last five years:—

BOOTLE VENEREAL DISEASES CLINIC.

	1930	1931	1932	1933	1934
New Cases (total)	372	332	344	325	309
New Cases (syphilis)	65	64	76	58	74
Total attendances (excluding Irrigation Department)	14193	15502	16876	12256	11616
Irrigation Department attendances	11895	15744	8729	3513	4035
In-patient Days	749	585	1154	569	676
No. discharged after completion of observation and treatment	77	114	116	107	136
No. who ceased to attend after completion of treatment, but before final tests as to cure	18	121	170	105	63

Bootle residents accounted for 51 per cent. of the cases under treatment at the Bootle Hospital Centre, the Authorities contributing the next largest number of cases being the Lancashire County Council with 26 per cent., and Liverpool with 20 per cent.

Against this attendance of outsiders at the Bootle Centre there may be set off the user of Liverpool centres by Bootle residents, and the following table summarises the available information as to the total number of cases among Bootle residents dealt with at the various local centres for the first time during 1934.

	NEW CASES—BOOTLE RESIDENTS.					
	Syphilis	Soft Chancre	Gonorrhœa	Other Conditions	Total	Total Attendances
Seamen's Dispensary ...	8	3	30	22	63	2377
Royal Infirmary ...	8	—	15	8	31	1165
Bootle General Hospital	42	1	59	31	133	7939
Mill Road Infirmary ...	10	—	18	4	32	1105
Total ...	68	4	122	65	259	12586

The following table sets out the change in incidence of the venereal diseases locally, in so far as it can be measured by records of new cases presenting themselves for treatment at the Bootle Centre:—

	NEW CASES ANNUALLY.					
	SYPHILIS.			GONORRHOEA.		
	Males.	Females.	Total.	Males.	Females.	Total.
1921-1925	123	41	164	166	6	172
1926-1930	63	19	82	176	20	196
1931	48	16	64	160	20	180
1932	53	23	76	185	25	210
1933	43	15	58	145	26	171
1934	47	27	74	120	31	151

When the Table is examined it will be noted that there has been a large decrease in the number of new cases of syphilis since 1925, but only a slight decrease in the number of cases of gonorrhœa which presented themselves for treatment; it is probable that the figures represent a real fall in the incidence of syphilis.

VIII. MATERNITY AND CHILD WELFARE.

ANTE-NATAL WELFARE.

Home Visiting of Expectant Mothers.—A great deal can be done to promote normal child-birth by careful instruction as to general and personal hygiene, and as to the need for suitable food, open-air exercise

and rest, adequate sleep, and properly devised clothing. The usual efforts to improve the general management of pregnancy by such instruction have been continued, and the Health Visitors paid 882 home visits to expectant mothers for this purpose during the year.

Ante-Natal Clinics.—The ready use of the facilities provided at the Ante-Natal Clinics in Bootle for medical supervision during pregnancy is well known to the Council, and this position was maintained during 1934. It may be recalled that the first Ante-Natal Clinic was established in Bootle in 1920, in which year expectant mothers equivalent to 8 per cent. of the total number of births came under public medical supervision. During 1934 four Ante-Natal Consultations were held each week, and in all 855 new cases attended, corresponding to 52 per cent. of the total registered births; in addition, 222 cases carried over from the preceding year continued under supervision, and a total of 4,331 attendances was made, with an average of 21 persons per Consultation.

Dental Treatment of Expectant and Nursing Mothers.—One afternoon weekly is devoted to the dental treatment of expectant and nursing mothers, and the treatment given has been in the nature of extractions, fillings, and the supply of artificial dentures.

The number of patients treated during the year rose from 171 in 1933 to 197, and the estimated cost of the dentures supplied was £73 12s. 0d., of which the patients' contributions were assessed at £32 14s. 0d. 56 cases were carried forward to 1934.

Owing to the increasing appreciation of the value of this service, and to the growing size of the waiting list, the Council has decided to increase the number of treatment sessions to two weekly as from April 1935.

MATERNAL WELFARE.

Nursing Homes Registration Act, 1927.—There is one Nursing Home proper within the Borough, as well as seven Maternity Homes, on the register. Bye-laws governing the conduct of these Nursing Homes were made by the Council in November 1931.

The Practice of Midwives.—The number of midwives resident in Bootle on the local roll is 25, as against 26 in the preeeding year; ten others, resident outside the district, have also given notice of their intention to practise in the Borough; all are trained. The above figures do not include midwives practising in local Municipal Maternity Homes.

Regulations of the Central Midwives' Board require medical help to be sought by the midwife in all cases of illness of the patient, or the child, or of any abnormality occurring during pregnancy, labour, or lying-in, and 310 records of sending for medical help were received. Thirty-seven of the calls were on aecount of abnormalities during pregnancy, 212 during labour, 12 during the puerperal period, and 49 for conditions affecting the child.

The Council accepts responsibility for the payment of midwives' fees in approved necessitous eases, and applications in respeeet of this service are considered with full information as to the family ineome and outgoings. There was a substantial inerease to 130 in the number of applications granted, as eompared with 63 during 1933.

Under the 1918 Aet the Local Supervising Authority is responsible for the payment of fees to doctors ealled in by midwives, and last year the number of such accounts received, in respeeet of cases where the doetor himself was unable to recover the fee, again showed a decrease; 230 aecounts, totalling £298 9s. 0d., were sent in, as eompared with 243 aecounts, totalling £335 0s. 6d., in 1933. In respeeet of this sum, the eontributions to be recovered from the patients were assessed at £55 11s. 0d.

Milk Assistance Scheme.—The Councel's Milk Assistance Scheme, under which dried milk is granted on the Clinic Medical Officer's reecom-mendation, to infants, and to expectant and nursing mothers, in neeces- sitous eases falling within a certain ineome seale, continued in force. In all, milk to the value of £761 0s. 0d., and eod liver oil emulsion to the value of £21 12s. 3d., making a total of £782 12s. 3d., was granted by the Council to infants and to nursing and expectant mothers, on the adviee of the Medical Officer, as compared with £644 8s. 7d. in 1933.

Institutional Provision for Maternity Cases.—As is the case else- where, an inereasing number of mothers choose to go into public institutions for eonfinement, and last year 326 patients were delivered in Walton Hospital at the cost of the Public Assistance Committee,

and 162 patients were delivered in the Municipal Maternity Home; in addition 37 patients were delivered in voluntary hospitals. The total of 525 represents 32 per cent. of the births registered during the year.

Maternity Home.—During the year 1934, 164 patients were admitted to the Maternity Home, the average duration of stay being 13·9 days; admissions in 1933 numbered 173. Two cases were treated for ante-natal supervision, 135 cases were delivered by the nursing staff, and 27 cases were delivered by doctors. Medical assistance was called in by the Matron on 7 occasions during labour, 18 times for rupture of perineum, and 3 times on account of the condition of the infant. Two cases were notified as puerperal pyrexia. There was one case of ophthalmia neonatorum. All the cases but two left the institution with their babies being breast fed.

Cases delivered by forceps numbered 12, or 7·4 per cent., as compared with 29·5 per cent. in a recently prepared examination of 14,614 cases delivered in private medical practice.

There were 11 foetal deaths (still-born or dying within 10 days of birth) in 8 of which the child was still-born.

Ninety-five of the patients were admitted in respect of their first confinement, and there were 35 cases of readmission to the home of former patients, of whom 6 were admitted for the third time, and one for the fourth time. There were four sets of twin births.

Post-Natal Supervision of the Mother.—The medical examination of mothers a few weeks after delivery, locally first instituted in 1929, has been continued and 105 patients attended for such post-natal supervision, the same number as in 1933. These cases included 5 patients who came for advice after abortion, and in addition there were 6 cases not recently pregnant who sought advice with regard to conception control.

Advice on special or general matters of hygiene was given to all the patients, and simple treatment was prescribed for such commonly occurring conditions as anaemia and constipation.

In cases where patients had already been in attendance at hospitals or special clinics it was strongly urged that they should continue treatment, the reasons for so doing being explained as far as possible.

Where examination disclosed conditions requiring further investigation or treatment, the patients were referred to the appropriate agencies, as follows:—twelve to hospitals, fourteen to the Mothers' Welfare Clinic, four to the Public Assistance Medical Officer, twelve to the Dental Clinic, two to the Tuberculosis Dispensary, two to private practitioners, and five to the Mothers' Holiday Home.

Puerperal Morbidity and Mortality.—Thirty-nine cases of puerperal pyrexia and four cases of puerperal fever were notified during the year. Three deaths were registered from puerperal fever, and four from other diseases and accidents of pregnancy and parturition.

During the year four cases of maternal death during pregnancy and parturition occurred, the causes of death being registered respectively as (1) acute pneumococcal meningitis, confinement; (2) septicaemia caused by spontaneous abortion; (3) liver atrophy, pregnancy; and (4) ruptured ectopic pregnancy. The circumstances of the confinements were investigated by the Medical Officer of Health, who received the full co-operation of the medical attendants concerned and confidential reports, not identifying the patients, were sent to the Departmental Committee on Maternal Mortality set up by the Ministry of Health.

The seven deaths thus classified to pregnancy and childbirth give a maternal mortality rate of 4·26 per 1,000 (live) births, and the following table shows that although there have been fluctuations in this rate, the local experience has been more favourable than that of the country as a whole.

MATERNAL MORTALITY.
(Classification as in use since 1911).

Period.	BOOTLE.		ENGLAND & WALES.
	No. of Deaths.	Rate per 1,000 (live) Births.	Rate per 1,000 (live) Births.
1911-1920	66	3·13	4·07
1921-1925	31	3·10	3·90
1926-1930	26	2·73	4·28
1931	7	4·20	4·21
1932	6	3·39	4·51
1933	6	3·63	4·42
1934	7	4·26	4·60

INFANT WELFARE.

Notification of Births Acts.—The number of live births notified under these Acts was 1,567; 319 were births to parents who normally resided outside the Borough. 1,551 notifications were received from midwives and 16 from doctors and parents. In addition there were 67 still-births notified (including 12 to non-Bootle residents).

The babies were visited shortly after birth by the Infant Welfare Visitors, unless it was considered that suitable advice could be obtained from other sources. A summary of the work of the Infant Welfare Visitors is given on page 93.

Births Registered.—The number of live births registered in the district was 1,541, from which 314 are to be deducted as born in Bootle to residents of other districts, and to which are to be added 417 births to Bootle parents temporarily out of the town; the corrected figure is therefore 1,644. Of the number registered 49 were illegitimate.

Still-births.—The number of still-births registered in the district was returned by the Registrar-General as 60; this figure corrected for 23 inward and 12 outward transfers gives a net total for the year of 71, as compared with 76 for 1933. As full an investigation as possible has been obtained in respect of each such case, and 32 of the foetuses were forwarded for pathological examination.

To obtain a complete picture of the true position as to infant mortality the still-births (which include deaths of infants both before birth and during the act of birth) should be added to the deaths of infants in their first twelve months of independent existence, and the following table is given with that end in view:—

Year.	DEATHS OF INFANTS.					
	Still Births.		Post-Natal.		TOTALS.	
	No.	Rate	No.	Rate	No.	Rate
1926 ...	63	32	187	100	250	129
1927 ..	58	31	141	78	199	106
1928 ...	53	29	186	107	239	133
1929	65	38	138	83	203	118
1930 ...	84	45	141	79	225	120
1931 ...	64	38	159	95	223	134
1932 ...	92	52	152	86	244	138
1933 ...	76	44	146	88	222	132
1934 ...	71	41	126	77	197	118

Infant Deaths.—There were 126 deaths of infants under the age of 12 months, which total expressed as a rate per 1,000 births gives an infant mortality rate of 77, compared with 88 during 1933.

The trend of infant mortality in recent years is set out in the table below :—

Years.	BOOTLE	England and Wales
1901-05	166	138
1906-10	130	117
1911-15	133	110
1916-20	103	91
1921-25	91	76
1926-30	89	68
1931	95	66
1932	86	65
1933	88	64
1934	77	59

The highest infantile mortality was experienced in the first quarter of the year owing to the higher incidence of respiratory disease; the number of deaths then recorded was 41 as compared with 28, 25 and 32 respectively during the remaining quarters of the year.

The infantile mortality rate was uneven throughout the various Wards; the approximate rates were:—101 in Orrell, 88 in Linacre, 76 in Knowsley, 69 in Derby, 63 in Mersey, and 48 in Stanley.

The rate of infantile mortality amongst legitimate infants was 76 per 1,000 births and amongst illegitimate infants it was 102. In conformity with the usual experience the mortality rates for males were higher than those for females, both during the first four weeks and in the subsequent months. The most important of the causes of death, which are given in detail on page 72, were bronchitis and pneumonia 36; prematurity 29; congenital malformation 12; atrophy, debility, and marasmus, 9; diarrhoea and enteritis 9; convulsions 8; measles 5, and tuberculosis 5.

Infant Mortality in Lancashire County Boroughs.—The Medical Officers of Health of other Lancashire County Boroughs have kindly supplied me with the information enabling me to compile the following list of infant mortality rates per 1,000 births during 1934 :—

Town.	Infant Mortality Rate.	Town.	Infant Mortality Rate.
Southport ...	46	Burnley ...	70
Bolton ...	53	Warrington ...	73
Blackburn ...	57	BOOTLE ...	77
Blackpool ...	59	Rochdale ...	77
St. Helens ...	65	Liverpool ...	81
Wigan ...	67	Bury ...	84
Manchester ...	69	Salford ...	93
Oldham ...	69	Barrow-in-Furness..	97

Neo-Natal Mortality.—Forty children died before they were a week old, and a total of 52, or 41·3 per cent. of all the deaths under one year, occurred in children under the age of one month. This is a neo-natal mortality rate of 31·6 per 1,000 births.

DEATH-RATES PER 1,000 BIRTHS, OF INFANTS UNDER FOUR WEEKS.

Years.	BOOTLE.	ENGLAND AND WALES.
	Deaths per 1,000 Births.	Deaths per 1,000 Births.
1906—1910	37·0	40
1911—1915	39·2	39
1916—1920	32·3	37
1921—1925	34·2	33
1926—1930	32·7	32
1931	40·8	32
1932	32·8	32
1933	34·5	32
1934	31·6	

Public Health (Ophthalmia Neonatorum) Regulations, 1926— Nineteen cases of ophthalmia neonatorum were notified during the year, compared with 9 in 1933 and 14 in 1932, the rates per 1,000 births being 11·6 for 1934, 5·4 for 1933, and 7·9 for 1932. The disposal of the cases and the results are shown in the table below:—

Cases.			Vision Unim- paired.	Vision Im- paired.	Removed from Area	Still under Treat- ment at end of year.	Total Blind- ness.	Deaths.
Notified.	Treated.							
	At Home.	In Hospital						
19	12	7	17	—	1	1	—	—

No action under the Public Health Act, Section 66, for the prevention of blindness or for the treatment of persons suffering from disease or injury to the eyes has been taken other than a continuance of the arrangements already made with St. Paul's Eye Hospital, Liverpool, for the reception of new-born infants suffering from inflammation of the eyes, with their mothers.

Home Visitation of Infants.—There are seven officers on the health visiting staff, of whom one devotes her time to general clinic supervision and to certain special duties; two give half their time to tuberculosis visiting, and another gives one-quarter of her time to the School Medical Service; the establishment is, therefore, equivalent to $5\frac{3}{4}$ visitors giving their whole time to Maternity and Child Welfare duties. This staff allowed on the average of the payment of three visits to each infant under one year, two visits each to infants in their second year, and one visit to each child between the age of two and five years. In all, 14,069 visits were paid, as compared with 16,565 during 1933. The decrease was due to absence of staff from ill-health.

Infant Welfare Clinics.—There are at present six Infant Consultations held weekly at two Centres. The number of new infants presented for examination and advice at such Centres during the year was 1,425, as compared with 1,759 during 1933, and 1,424 during 1932. Of these, 1,095 were infants under the age of one year, and 320 were over that age. The total attendances throughout the year numbered 23,044, compared with 22,936 during 1933. The average attendance at each meeting varied from 46 at the Wednesday morning session at the School Medical Offices to 97 at the Wednesday afternoon session at the Health Centre.

Education in mothercraft, which is the prime function of the Infant Welfare Clinics, was continued during the year, and included special talks given by the Health Visitors to groups of mothers at the Clinics held at the Health Centre; these talks formed part of a considered syllabus dealing with the principal points in infant hygiene.

YOUNG CHILD WELFARE.

An examination on the lines of school medical inspection has again been offered to children within three months of their attaining three years of age. 167 children were so examined, and in 102 cases, *i.e.*,

60 per cent., it was necessary to note a defect or to give advice on a subject raised by the parent, and it may be mentioned that a prescription frequently given is one of "more rest."

Apart from these examinations, supervision of children up to five years of age has been continued and is of special value in certain cases, *e.g.*, defects of vision, speech and circulation, where the child will need modified provision for its education.

The value of such continuous skilled care, aided by parental co-operation, is exemplified in a case of congenital club-foot. The baby was seen when a month old by the Consultant Orthopaedic Surgeon, when the condition was noted as "severe and fixed"; during the following five years continuous treatment has been carried out both in hospital and at the remedial exercises clinic, with the result that the child will start its school life with an almost perfect foot.

Advantage was taken of the facilities for treatment at the various specialist School Clinics; for example, 27 cases were seen by the Ophthalmic Surgeon, and glasses were ordered for 18 as a result of examination. Further, the help of the Liverpool Child Welfare Association was enlisted in providing tonics and convalescent treatment in special cases.

Convalescent Home Provision.—Provision was, as usual, made in the Maternity and Child Welfare Sub-Committee's estimates for grants towards the cost of convalescent home treatment for children under the age of five years, and there is little doubt that child health would be much improved by a readier acceptance of the routine of good food, open air, exercise, and rest, practised in the modern convalescent home. The position in this regard showed an improvement during the year, and five children were admitted to the Bradstock Lockett Convalescent Home at Southport for various periods, making 71 patient weeks in all.

Nurse Children.—The new powers in respect of the reception of children under the age of nine years for reward conferred on the Council by the coming into force of the Children and Young Persons Act, 1932, are administered through the Health Visitors, who supervised the general health and well-being of 17 such children who were on the register on 31st December last.

Boarded-out Children.—At the end of the year two children were on the Register of Children boarded-out by the Council under Part VI. of the Public Assistance Order 1930, as against five at the end of 1933. One case was admitted to Olive Mount Institution, and one case was admitted to the Cottage Homes, Wavertree; another case ceased to be “boarded-out” during the year. The two remaining cases each received six visits from the School Nurses during the year. The rules contained in the Order have been observed, and the reports on the homes and general condition of the children have continued satisfactory.

The Liverpool Child Welfare Association.—This Association has continued to send workers one morning each week to the School Medical Offices to facilitate the arrangements for dealing with recommendations of the medical staff of the Council or private doctors for the provision of surgical appliances, cod liver oil, extra nourishment, or convalescent home treatment, to infants and school children.

IX. HEALTH EDUCATION.

Health Education was continued as in previous years by the Council’s medical and nursing staff, the former giving lectures to various social and educational organisations, and the latter undertaking a series of health talks three times weekly to mothers in attendance at the clinics, in supplement of the more informal instruction given in the homes.

In addition, satisfactory arrangements were concluded for the renewal of the publication of the local edition of “Better Health,” and as from August last 2,000 copies of the journal have been circulated each month. Supplementary pages of copy supplied by the staff of the Health Department have enabled the following topics to be dealt with—(1) The Health of the School Child in 1933; (2) Diphtheria—A Warning and an Offer; (3) Food—Its Uses and Abuses; (4) Milk at $\frac{1}{2}$ d. per day; and (5) Does he have enough Sleep?

Further, advantage was taken of the scheme organised by the Central Council for Health Education for the regular supply and display of designs from the various national organisations having special interests such as maternity and child welfare, tuberculosis, the milk supply, and venereal diseases.

X. NURSING ARRANGEMENTS, HOSPITALS AND OTHER INSTITUTIONS AVAILABLE FOR THE DISTRICT.

Professional Nursing in the Home.—The services of the Bootle District Nurses' Association are available for the nursing in their own homes of patients suffering from puerperal fever, measles, whooping cough, epidemic diarrhoea, ophthalmia neonatorum, pneumonia, and poliomyelitis; information as to cases requiring such attention is mainly derived from the health visiting staff, and the financial arrangements with the Association provide for payment by the Council of an annual retaining fee of £35, together with a charge of 8d. per visit in approved cases. The classification of such work by the District Nurses' Association follows:—

	Carried over from 1933	New Cases	Total	Total Visits	Transferred for treat- ment to Hospital	Died	Im- proved	Under treatment at end of 1934
Discharges from eyes..	2	54	56	716	2	—	54	—
Pneumonia	2	50	52	715	3	3	46	—
Tuberculosis	2	6	8	371	1	2	4	1
Measles	—	19	19	307	—	1	18	—
Worms	—	37	37	286	—	—	37	—
Diarrhoea	—	17	17	190	1	—	16	—
Other diseases	—	32	32	628	—	1	31	—
	6	215	221	3213	7	7	206	1

Midwives.—Thirty-five midwives, excluding those practising in local municipal maternity homes, signified their intention to practise within the district during the year commencing 1st January 1934. Apart from the staff of the Municipal Maternity Home, there is no direct employment of or subsidy to practising midwives, although responsibility is accepted for the payment of the midwife's fee in such cases as are sanctioned by the Maternity and Child Welfare Sub-Committee after consideration of the patient's income, size of family, etc.

Hospitals.—The Bootle General Hospital (100 beds) is the only general hospital situate within the Borough boundary, but the Liverpool voluntary hospitals (both general and special) are also attended by Bootle residents.

Other institutional accommodation for the sick is obtained, as explained elsewhere in the Report, by agreement with the Liverpool

City Council for reception into their institutions of sick persons, resident in the Borough, for whom other provision is not at the time available.

Clinics and Treatment Centres.—The Clinics and Treatment Centres under the control of the Local Authority remain as described in the Annual Report for 1932.

XI.—HOUSING.

Housing Progress during 1934.—During 1934 twenty-six houses were erected under municipal housing schemes, and three hundred and thirty were erected by other bodies and persons. The table below demonstrates the progress made with new housing provision during recent years:—

Houses Erected				by Local Authority	by Private Enterprise	by Private Enterprise assisted by Corporation on Corpora- tion land
Number of houses completed during 1920				26	—	—
“	“	“	1921	76	5	—
“	“	“	1922	200	—	—
“	“	“	1923	—	5	—
“	“	“	1924	2	—	—
“	“	“	1925	88	3	—
“	“	“	1926	84	—	—
“	“	“	1927	182	9	—
“	“	“	1928	305	—	—
“	“	“	1929	346	6	—
“	“	“	1930	348	—	—
“	“	“	1931	394	—	—
“	“	“	1932	176	46	11
“	“	“	1933	79	17	104
“	“	“	1934	26	44	286
Totals				2332	135	401

Existing Housing Needs.—Opportunity was taken of the annual preparation of the Register of Electors in May and June 1934 to acquire additional information in connection with housing, and the data so obtained are set out in the table below to show the overcrowding existing, firstly, in houses occupied by two or more families, and secondly, in houses occupied by one family only.

PARTICULARS OF HOUSES IN BOOTLE WITH OCCUPANTS IN EXCESS OF STANDARD
OF HOUSING ACT, 1930, SECTION 37.

60

(A) AS TO OVERCROWDED HOUSES OCCUPIED BY TWO OR MORE FAMILIES.

WARD and POLLING DISTRICT.	Number of Houses.	Number of Families in occupa- tion.	Number of persons in excess of standard of Housing Act, 1930.	Number of Families requiring to be re-housed.	Number of persons of affected families who should be re-housed.	Types of Houses required in accordance with requirements of the Housing Act, 1930.						Total Number of Houses required.
						A2	A3	A4	A5	A6	A7	
DERBY— A B	54 53	108 111	111 124	54 58	165 213	46 40	2 2	5 12	1 4	— —	— —	54 58
STANLEY— C D	84 14	177 34	227 31	92 15	354 55	65 11	4 2	14 1	6 1	3 —	— —	92 15
MERSEY— E F	282 132	678 297	1008 404	333 145	1360 562	196 103	35 9	63 23	32 7	6 3	1 —	333 145
KNOWSLEY— G H (A) H (B)	157 25 77	334 73 178	518 84 260	168 30 88	638 99 365	100 23 60	6 2 2	42 4 17	16 1 4	4 — 5	— — —	168 30 88
LINACRE— I J	109 27	227 63	258 84	113 30	384 112	85 22	7 4	14 4	6 —	1 —	— —	113 30
ORRELL— K (A) K (B)	11 7	23 17	30 23	12 7	42 30	9 4	— 1	3 1	— 1	— —	— —	12 7
TOTALS	1032	2920	3162	1145	4379	764	76	203	79	22	1	1145

(B) AS TO OVERCROWDED HOUSES OCCUPIED BY ONE FAMILY ONLY.

WARD and POLLING DISTRICT.	Number of Houses.	Number of Families in occupation.	Number of Persons in excess of standard of Housing Act, 1930.	Number of Families requiring to be re-housed.	Number of Persons of the affected Families who should be re-housed.
DERBY—					
A ...	181	181	394	181	1279
B ...	382	382	808	382	2663
STANLEY—					
C ...	175	175	386	175	1266
D ...	158	158	300	158	1082
MERSEY—					
E ...	156	156	374	156	1094
F ...	205	205	437	205	1534
KNOWSLEY—					
G ...	322	322	787	322	2311
H (A) ...	98	98	302	98	906
H (B) ...	169	169	405	169	1250
LINACRE—					
I ...	486	486	1209	486	3235
J ...	247	247	595	247	1843
ORRELL—					
K (A) ...	632	632	1323	632	3408
K (B) ...	181	181	363	181	1263
TOTALS ...	3392	3392	7683	3392	23134

Although the Housing Bill 1935 now before Parliament will enact a definition of overcrowding different from that adopted in this examination, yet, at the time of the survey, the Housing Act, 1930, contained in effect the only statutory standard of overcrowding. Section 37 of that Act provided, relative to the obligations of a local authority with respect to rehousing, that the Ministry of Health shall treat a house containing two bedrooms as providing accommodation for four persons, a house containing three bedrooms as providing accommodation for five persons, and a house containing four bedrooms as providing accommodation for seven persons. It is admitted that this Section governed the Exchequer contribution to the expenses of local authorities in providing accommodation available for displaced persons, and that it did not preclude a local authority from allowing occupants in excess of the prescribed numbers, but in practice this was the standard adopted in rehousing persons from the Pleasant View Clearance Area, and the formula was accordingly used in framing an estimate of the number of persons living in overcrowded conditions in the Borough. The results of the application of that formula to the facts obtained during the survey above referred to are summarised in the table above, and in brief show that in houses occupied by two or more families there were 3,162 persons in excess of the standard of the Housing Act, 1930, and in respect of houses occupied by one family only there were 7,683 persons in excess of that standard; the numbers of families affected were 1,145 and 3,392 respectively. The total of persons in excess of the 1930 Act standard was, therefore, 10,845.

It now remains to determine the minimum number of rooms required to abate this amount of overcrowding, and the authoritative examination of this problem made by the Council for Research on Housing Construction indicates that the figure of $1\frac{1}{2}$ persons per room is reasonable for the purpose of calculating the shortage of houses. Their Report points out that "New dwellings should be regarded as providing accommodation on the basis of not more than two persons sleeping in each "habitable" room, subject to sex separation for all persons other than married couples or children under 10 years of age sleeping together." The Report further states that "the maximum permissible density of occupation—in persons per room—on this standard is not constant, but increases, with the family size, from 1 to a limit at infinity of 2. To make the standard usable on a large scale it is necessary to determine the *average* permissible density; this depends on the relative numbers of families of different sizes in the

population under consideration. For the distribution of family sizes in London, as returned in the 1931 census, the average requirement is approximately 1.55 persons per room. Thus the over-all standard of not more than $1\frac{1}{2}$ persons per room, which has been put forward in many quarters, is not only convenient but also sufficiently accurate for all practical purposes."

"It should be emphasised that these standards are for *new* dwellings under *present* conditions. They are too high to be applied at once to all old dwellings; and it is to be hoped that they are not high enough for the new dwellings of a more prosperous future. In particular, a standard of $1\frac{1}{2}$ persons per room which counts in the living-room as available for sleeping cannot be accepted as permanently satisfactory."

The application of this standard of $1\frac{1}{2}$ persons per room to the excess population of 10,845 indicates a need for 7,230 habitable rooms, and the provision of one-half of these in four-roomed houses (of 3 bedrooms) and of the other half in five-roomed houses (of 4 bedrooms) will require 903 and 723 houses respectively, or a total of 1,626 houses in all.

Housing Applications in 1935.—The register of housing applicants was revised, and the submission of new or renewed applications for municipal houses was invited by advertisement in January 1935; the table below classifies the 1,072 applications received by 23rd March from non-householders resident in the Borough.

PARTICULARS OF HOUSING CIRCUMSTANCES OF APPLICANTS OCCUPYING ROOMS
ON MARCH 23RD 1935.

	Number Living in 1 Room.	Number Living in 2 Rooms.	Number Living in 3 Rooms.	Number Living in 4 Rooms.	Totals.
Husband & Wife	42	123	5	—	170
„ + 1 child	75	239	19	—	333
„ + 2 children	56	216	21	4	297
„ + 3 „	32	100	14	2	148
„ + 4 „	12	50	8	2	72
„ + 5 „	4	23	5	—	32
„ + 6 „	4	3	1	—	8
„ + 7 „	—	3	3	—	6
„ + 8 „	—	3	2	1	6
Totals	225	760	78	9	1072

Insanitary Areas and Unfit Houses.—Mention was made in the last Annual Report of the Local Enquiry held by the Minister of Health in January 1934 to judge the adequacy of the proposals submitted by the Council in November 1933 to deal with insanitary areas and unfit houses; it will be remembered that that programme was called for by Circular 1331 and showed that it was proposed to schedule no clearance areas, two improvement areas, and three houses for demolition.

Although the implication contained in the Minister's decision to hold an Enquiry was presumably a fear lest property which should be cleared was omitted from the Council's programme, the Minister's decision conveyed in a letter dated 19th February 1934, was as follows:—"The Minister notes that the Corporation have taken steps to inform themselves of the housing conditions of the County Borough. In his report, however, the Inspector has drawn attention to certain areas where the number of houses to the acre is high, and I am to request that the Corporation will again consider whether the conditions in those areas can be regarded as so satisfactory that action under either Section 1 or Section 7 of the Act of 1930 is unnecessary."

In effect the comment on areas of high density, such as the Johnstone Street area and the Bootle Hall Estate area, was made in his evidence by the Medical Officer of Health, who also made it clear that those areas were included in the programme of action to be taken under Section 17 (repairs) of the Act of 1930. The attention of the Minister was accordingly drawn to these facts, and his reply of 28th April 1934 included a statement that "on the understanding that the Corporation will proceed forthwith to secure the execution of such improvements the Minister is prepared to take the view that the arrangements of the Authority can be regarded by him as adequate."

Howe Street Improvement Area.—The Bye-laws in respect of this Improvement Area approved by the Minister of Health in September 1932 have now been in operation for over two years, and during the year under review 144 inspections were made to see that these were being complied with; the structural alterations having been completed by the owners, it was possible to pay particular attention to those sections relating to overcrowding and cleanliness of the houses, and it is satisfactory to report the general compliance with the Bye-law requirements,

Housing Act, 1930, Sec. 17.—During the year a total of 368 houses was inspected under the above Section, the property being distributed in Wards as follows:—Knowsley Ward 9, Mersey Ward 137, Stanley Ward nil, Derby Ward 112, and Linacre Ward 110.

In many cases the work carried out has been of an extensive nature and great improvements have been effected. This is notably the case in respect of the houses on the second side (even numbers) of Lincoln Street in which, in addition to re-conditioning, increased lighting has been obtained to staircases and landings, and the washboilers and sinks have been reconstructed to provide better amenities for the tenants.

Considerable structural alterations were effected at the whole of the houses on one side (even numbers) in Johnstone Street, which included the demolition of the wing bedrooms, resulting in greatly increased light and ventilation being afforded to the rooms at the rear of the properties.

Special mention may also be made of the extensive re-conditioning of fifty-six houses in the area of Pine Grove, Akenside Street, and Matthew Street.

In the quinquennial statement prepared in December 1930 in compliance with the Housing Act, 1930, it was stated that the estimated number of houses to be repaired under Section 17 within the following five years was 1,171, and the progress made in this regard by December 31st 1934 can be summarised as follows:—

Number of houses inspected	...	...	...	...	...	1250
„ „ „ in respect of which informal notices were served	...	...	...	...	...	1250
„ „ „ at which work was completed as a result of informal notice	...	...	...	...	...	810
„ „ „ in respect of which Statutory notices were served	...	...	...	...	...	163
„ „ „ at which work was completed as a result of Statutory notices	...	...	...	...	...	80
„ „ „ at which work was in progress	...	...	...	...	...	271
„ „ „ at which work was not commenced	...	...	...	...	...	43
„ „ „ for which Demolition Orders made	...	...	...	...	...	6
„ „ „ demolished	...	...	...	...	...	6

Houses Let in Lodgings—Continued attention has been paid to those houses of the larger type which lend themselves to the accommodation of three or more families, and during the year 45 houses

were visited and a census taken of the occupants together with particulars of the amenities available for their use.

In 10 instances it was found that more than two families were in occupation and that the houses, which thus constituted Houses let in Lodgings, did not conform with the Bye-laws, and informal action was taken in each case to have the necessary requirements carried out.

In accordance with previous experience it was found that with one exception the principal tenant was responsible for the sub-letting and that the owner was not disposed to incur expense in carrying out the structural alterations required. In the nine cases the owner negotiated with the principal tenant for the reduction of the number of families in each house to two, so that the Bye-laws did not apply.

In addition to the primary inspections referred to above, 90 visits were made to houses previously inspected to see that overcrowding did not take place and that a reasonable standard of cleanliness was observed, and in no case was any contravention detected that was not rectified by a verbal warning.

Pleasant View Clearance Area.—Successive Annual Reports since 1929 have recorded the steps taken to deal with the property comprised within the Pleasant View area, and the position in April 1935 is that forty houses have been vacated and are in process of demolition; fifty-eight houses have been erected on the Marsh Lane site to accommodate the sixty families so displaced; and tenders have been invited for the houses to be erected in Bulwer Street and on the old site for the accommodation of the families in the houses still remaining

HOUSING STATISTICS.

I. *Inspection of Dwelling-houses during the Year.*

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	2225
(b) Number of inspections made for the purpose	7229
(2) (a) Number of dwelling-houses (included under subhead (1) above) which were inspected, and recorded under the Housing Consolidated Regulations, 1925	368
(b) Number of inspections made for the purpose	5827
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	2
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	2036

II. Remedy of Defects during the year without Service of formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	1555
--	------

III. Action under Statutory Powers during the Year.

A. Proceedings under Sections 17, 18 & 23 of the Housing Act, 1930—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	89
(2) Number of dwelling-houses which were rendered fit after service of formal notices—	
(a) by owners	6
(b) by Local Authority in default of owners	—

B. Proceedings under Public Health Acts—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	684
(2) Number of dwelling-houses in which the defects were remedied after service of formal notices—	
(a) by owners	672
(b) by Local Authority in default of owners	—

C. Proceedings under Sections 19 & 21 of the Housing Act, 1930—

(1) Number of dwelling-houses in respect of which Demolition Orders were made	2
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	5

D. Proceedings under section 20 of the Housing Act, 1930—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	15
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	6

E. Proceedings under section 3 of the Housing Act, 1925—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	Nil
(2) Number of dwelling-houses which were rendered fit after service of formal notices—	
(a) by owners	Nil
(b) by Local Authority in default of owners	Nil
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declaration by owners of intention to close	Nil

F. Proceedings under sections 11, 14 and 15 of the Housing Act, 1925—

(1) Number of dwelling-houses in respect of which Closing Orders were made	Nil
(2) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit ...	Nil
(3) Number of dwelling-houses in respect of which Demolition Orders were made	Nil
(4) Number of dwelling-houses demolished in pursuance of Demolition Orders	Nil

XII. BLIND WELFARE.

The original scheme made by the Council on the passing of the Blind Persons Act, 1920, was revised during the year, and a new scheme, and the regulations incidental thereto, received the approval of the Ministry of Health in April 1934.

During the year the Ophthalmic Surgeon held 13 clinics and examined 27 new cases and re-examined 34 old ones; and in addition saw 5 new cases at their own homes, owing to physical disabilities which prevented their attendance at the clinic. Of this total number of 66 examinations 19 were added to the register of blind persons, and there was also one transfer case added. Fourteen names were removed, 2 owing to decertification, 6 to death, and 6 to removal outside the Borough, leaving a total on the register at the end of 1934 of 148 persons as compared with 142 last year.

The age and sex classification of the 148 persons referred to is as follows:—

Age Group.			Males.		Females.		Total.
0—5 years	...	...	—	...	1	...	1
5—16	„	...	5	...	2	...	7
16—21	„	...	5	...	1	...	6
21—30	„	...	5	...	8	...	13
30—40	„	...	6	...	2	...	8
40—50	„	...	4	...	6	...	10
50—60	„	...	10	...	13	...	23
60—70	„	...	15	...	20	...	35
Over 70 years	...	...	19	...	26	...	45
Totals			69		79		148

A return furnished by the Home Teaching Society in October 1934 showed that they were then assisting 95 unemployable blind with money grants at a total weekly cost of £52 13s. 3d., the amount of relief being given varying from 1/6 to 25/- weekly, with the maximum amount of 25/- being paid in 5 cases. In addition one person was entered as undergoing training and seven as being employed at Blind Workshops. During the year 41 applications for the certification of blindness in order to take advantage of the Wireless Telegraphy (Blind Persons Facilities) Act, 1926, were granted.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1934 AND PREVIOUS YEARS.

YEAR.	Population estimated to middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT			
		Un-corrected Number.	Nett.		Number.	Rate.*	of Non-residents registered in the District. 8	of Residents not registered in the District. 9	UNDER ONE YEAR OF AGE		AT ALL AGES.	
			Number.	Rate.					Number.	Rate per 1,000 Net Births	Number.	Rate
1	2	3	4	5	6	7			10	11	12	13
1914.	73,230	2,279	2,321	31.7	1,033	14.1	54	263	286	123	1,242	17.0
1915.	Civil 71,617 Total 74,285	2,023	2,050	27.6	1,054	14.7	62	294	292	142	1,236	17.9
1916.	Civil 71,135 Total 77,396	2,047	2,076	26.8	1,101	15.5	80	258	227	109	1,279	18.0
1917.	Civil 68,871 Total 76,772	1,853	1,873	24.4	1,023	14.1	91	281	187	99	1,213	17.6
1918.	Civil 73,500 Total 80,500	1,781	1,810	22.5	1,224	16.6	63	268	210	116	1,429	19.4
1919.	Civil 77,000 Total 80,500	1,860	1,914	23.9	988	12.7	79	245	184	96	1,154	15.0
1920.	80,029	2,235	2,289	28.6	1,000	12.5	59	195	223	97	1,136	14.2
1921.	76,487	2,142	2,068	27.0	817	10.7	43	236	198	96	1,010	13.2
1922.	76,518	2,144	2,051	26.8	877	11.5	42	253	164	80	1,093	14.3
1923.	76,549	2,159	1,999	26.1	858	11.2	50	262	170	85	1,070	14.0
1924.	76,531	2,078	1,942	25.4	799	10.4	59	226	192	99	966	12.6
1925.	76,612	2,077	1,943	25.4	820	10.7	53	324	188	97	1,091	14.2
1926.	76,643	1,953	1,865	24.3	730	9.5	36	311	187	100	1,005	13.1
1927.	76,674	1,916	1,817	23.7	734	9.6	39	339	141	78	1,034	13.5
1928.	76,705	1,793	1,746	22.8	703	9.2	48	379	186	107	1,033	13.5
1929.	76,737	1,668	1,660	21.6	713	9.3	34	414	138	83	1,093	14.2
1930.	76,768	1,774	1,793	23.4	608	7.9	61	394	141	79	941	12.3
1931.	77,160	1,709	1,667	21.6	731	9.5	55	464	159	95	1,140	14.8
1932.	77,260	1,711	1,768	22.9	638	8.3	48	437	152	86	1,027	13.3
1933	77,210	1,532	1,652	21.4	648	8.4	56	483	146	88	1,075	13.9
1934	76,800	1,541	1,644	21.4	587	7.6	45	448	126	77	990	12.9

* These rates are based on the uncorrected numbers.
Area of District in acres (land and inland water)—1,947.

APPENDIX 2.
CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1934.

NOTIFIABLE DISEASES.	NUMBER OF CASES NOTIFIED.												Total Cases Notified in each Locality (e.g., Parish or Ward) of the District.						
	At Ages—Years.																		
	At all Ages.	Under One year	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	Over 65 yrs.	Derby Ward.	Stanley Ward.	Mersey Ward.	Knowsley Ward.	Linacre Ward.	Orrell Ward.
Smallpox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera-Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	47	13	41	59	46	87
Diphtheria (including Mem- branous Croup)	293	4	7	15	30	26	122	49	12	26	2	..	..	8	6	10	4	15	20
Erysipelas	63	1	1	3	1	..	2	1	4	11	10	25	..	61	39	25	32	25	98
Scarlet Fever	280	4	17	14	36	27	115	46	4	15	1	1	..	..	..	..	..	..	..
Typhus Fever.. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Enteric Fever	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Relapsing Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	4	..	..	..	..	..	..	..	..	3	1	..	..	1	..	2	1	..	7
Puerperal Pyrexia	39	..	..	..	..	..	..	..	4	26	9	..	..	9	1	6	7	9	..
Cerebro-spinal Meningitis ..	4	..	1	1	..	1	..	..	..	1	..	..	..	1	1	1	1	1	..
Polio-myelitis	2	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..
Ophthalmia Neonatorum ..	19	19	..	..	..	..	..	..	..	..	..	..	..	1	2	5	4	4	3
*Infantile Diarrhoea	26	17	9	..	..	..	..	..	..	..	..	..	..	1	2	14	2	2	7
Influenzal Pneumonia	17	..	..	..	..	..	2	2	3	5	4	1	..	2	2	3	2	3	5
Acute Primary Pneumonia ..	236	26	32	13	10	4	45	17	14	19	18	28	10	34	13	44	44	44	57
Trench Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Malaria .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis Lethargica ..	3	..	1	..	..	..	1	..	..	1	..	..	..	..	..	1	..	1	1
Dysentery	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Totals	988	71	68	47	78	53	288	115	42	107	45	55	14	163	77	152	157	151	285

* Voluntary notification of cases under the age of two years during July, August and September.
Isolation Hospital or Hospitals, Sanatoria, etc.:—Corporation Hospital, Linacre Lane, Bootle; Bootle Sanatorium, Maghull.

APPENDIX 3.

CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1934.

CAUSES OF DEATH.				NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESIDENTS" IN INSTITUTIONS IN THE DISTRICT	
				All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 and upward.		
All causes	Certified	...	...	948	119	29	43	51	41	94	259	312	134
	Uncertified	...	...	42	7	..	1	..	2	1	14	17	8
Enteric Fever	...	...	...	..	..	..	..	..	..	..	..	..	..
Small-pox	...	...	...	..	..	..	..	..	..	..	..	..	..
Measles	...	...	...	26	5	13	8	..	..	..	..	..	..
Scarlet Fever	...	...	...	2	..	1	1	..	..	..	..	..	4
Whooping Cough	..	...	...	2	1	..	1	..	..	..	..	..	..
Diphtheria and Croup	...	...	...	36	..	1	15	20	..	..	..	..	42
Influenza	...	...	...	12	..	..	..	..	1	2	4	5	..
Erysipelas	...	...	...	4	..	..	..	..	..	2	1	1	1
Phthisis (Pulmonary Tuberculosis)	...	...	...	90	5	..	2	3	16	32	26	6	11
Tuberculous Meningitis	...	...	...	7	..	1	1	1	1	2	1	..	1
Other Tuberculous Diseases	...	...	...	9	..	..	..	1	1	2	2	3	..
Cancer, malignant disease	...	...	...	124	..	..	..	..	1	11	60	52	4
Rheumatic Fever	...	...	...	6	..	..	..	6	..	..	..	..	1
Meningitis	...	...	...	8	1	2	2	1	2	..	..	..	1
Organic Heart Disease	...	...	...	124	..	..	..	2	2	6	35	79	4
Bronchitis	...	...	...	49	5	..	..	..	..	1	15	28	1
Pneumonia (all forms)	...	...	...	110	31	7	6	4	5	9	25	23	16
Other diseases of respiratory organs	...	...	...	6	..	1	..	1	..	..	2	2	2
Diarrhoea and Enteritis	...	...	...	14	9	2	1	..	..	..	1	1	..
Appendicitis and Typhlitis	...	...	...	1	..	..	..	..	..	..	1	..	..
Cirrhosis of Liver	...	...	...	..	..	..	..	..	..	..	..	..	..
Alcoholism	...	...	...	..	..	..	..	..	..	..	..	..	..
Nephritis and Bright's Disease	...	...	...	39	..	..	..	..	1	3	16	19	1
Puerperal Fever	...	...	...	3	..	..	..	..	1	2	..	..	1
Other accidents and diseases of Preg- nancy and Parturition...	...	...	...	4	..	..	..	..	2	2	..	..	1
Congenital Debility and Malformation, including Premature Birth	...	...	...	52	50	..	1	1	..	..	..	..	4
Violent Deaths, excluding Suicide	...	...	...	18	1	..	6	1	2	..	8	..	13
Suicide	...	...	...	7	..	..	..	..	..	4	3	..	2
Other Defined Diseases	...	...	...	232	18	1	..	10	8	14	72	109	30
Diseases ill-defined or unknown...	...	...	...	5	..	..	..	..	..	3	1	1	2
Totals				990	126	29	44	51	43	95	273	329	142	

SUB-ENTRIES INCLUDED IN ABOVE FIGURES.

[illegible]

INFANT MORTALITY.

1934. Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.		Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under One Year.
All Causes	(Certified) (Uncertified)	38 2	3 1	2 —	6 —	49 3	22 1	22 —	17 1	10 —	120 6
Small-pox	...	—	—	—	—	—	—	—	—	—	—
Chicken-pox	...	—	—	—	—	—	—	—	—	—	—
Measles	...	—	—	—	—	—	—	1	1	3	5
Scarlet Fever	...	—	—	—	—	—	—	—	—	1	1
Whooping Cough	...	—	—	—	—	—	—	—	—	—	—
Diphtheria and Croup	...	—	—	—	—	—	—	—	—	—	—
Erysipelas	...	—	—	—	—	—	—	—	—	—	—
Tuberculous Meningitis	...	—	—	—	—	—	—	—	—	—	—
Abdominal Tuberculosis	...	—	—	—	—	—	2	2	—	1	5
Other Tuberculous Diseases	...	—	—	—	—	—	—	1	—	—	1
Meningitis (not Tuberculous)	...	—	—	—	—	—	—	—	—	—	—
Convulsions	...	3	—	—	1	4	3	—	1	—	8
Laryngitis	...	—	—	—	2	2	1	—	1	—	5
Bronchitis	...	—	—	—	1	2	6	9	12	2	31
Pneumonia (all forms)	...	1	—	—	—	—	—	1	—	—	1
Diarrhoea	...	—	—	—	—	—	2	4	1	1	8
Enteritis	...	—	—	—	—	—	—	—	—	—	—
Gastritis	...	—	—	—	—	—	—	—	—	—	—
Syphilis	...	—	—	—	—	—	—	—	—	—	—
Rickets	...	—	—	—	—	—	—	—	—	—	—
Suffocation, overlying	...	—	—	—	—	—	—	—	—	—	—
Injury at Birth	...	—	—	—	—	—	—	—	—	—	—
Atelectasis	...	6	1	—	—	8	3	1	—	—	12
Congenital Malformations	...	23	3	—	—	26	2	2	—	1	29
Premature Birth	...	2	—	1	—	3	2	2	2	—	9
Atrophy, Debility and Marasmus	...	3	—	1	1	7	3	—	—	1	11
Other Causes	...	—	—	—	—	—	—	—	—	—	—
Totals		40	4	2	6	52	24	22	18	10	126

Nett Births in the year ... 1,595
 { legitimate infants ... 49
 { illegitimate infants ...

Nett Deaths in the year { legitimate ... 121
 { illegitimate ... 5

APPENDIX 5.

Memo. 37/T. (Revised).
FIRST SCHEDULE.

Form T. 145.

TUBERCULOSIS SCHEME.
RETURN FOR THE YEAR 1934.

(A) Return showing the work of the Dispensary (or Dispensaries).

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.				GRAND TOTAL..	
	Adults		Children		Adults		Children		Adults		Children			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
A.—NEW CASES examined during the year (excluding contacts):—														
a) Definitely tuberculous .	57	39	—	2	4	6	11	15	61	45	11	17		134
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	5	9	6	4		24
(c) Non-tuberculous	—	—	—	—	—	—	—	—	32	25	21	22		100
B.—CONTACTS examined during the year:—														
(a) Definitely tuberculous .	1	2	1	—	—	—	—	—	1	2	1	—		4
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	4	5	2	4		15
(c) Non-tuberculous	—	—	—	—	—	—	—	—	8	21	33	50		112
C.—CASES written off the Dispensary Register as:—														
(a) Recovered	1	4	4	1	3	2	6	—	4	6	10	1		21
(b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous)	—	—	—	—	—	—	—	—	53	72	66	83		274
D.—NUMBER OF CASES on Dispensary Register on December 31st:—														
(a) Definitely tuberculous .	238	163	9	21	24	43	66	64	262	206	75	85		628
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	6	9	7	8		30

1. Number of cases on Dispensary Register on January 1st	673	7. Number of consultations with medical practitioners:—	
		(a) Personal	5
		(b) Other	254
2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years	20	8. Number of visits by Tuberculosis Officers to homes (including personal consultations)	22
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of"	72	9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	1642
4. Cases written off during the year as Dead (all causes)	57	10. Number of:—	
		(a) Specimens of sputum, etc., examined	517
		(b) X-ray examinations made ... in connection with Dispensary work	304
5. Number of attendances at the Dispensary (including Contacts)	6561	11. Number of "Recovered" cases restored to Dispensary Register, and included in A (a) and A (b) above	4
6. Number of Insured Persons under Domiciliary Treatment on the 31st December	132	12. Number of "T.B. plus" cases on Dispensary Register on December 31st	230

(B) Number of Dispensaries for the treatment of Tuberculosis (excluding centres used only for special forms of treatment).

Provided by the Council ... One Provided by Voluntary Bodies ... Nil

APPENDIX 5 (continued).

(C) Number of beds available for the treatment of Tuberculosis on the 31st December in Institutions belonging to the Council.

Name of Institution	For Pulmonary Cases		For Non-Pulmonary Cases		Total
	Adults	Children under 15	Adults	Children under 15	
Linacre Hospital	28	..	...	.	28
Maghull Sanatorium	22	...	...	...	22

(D) Return showing the extent of Residential Treatment and Observation during the year in Institutions (other than Poor Law Institutions) approved for the treatment of Tuberculosis.

		In Institutions on Jan. 1st	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31st
Number of doubtfully tuberculous cases admitted for observation	Adult males	—	3	1	1	1
	Adult females	1	8	6	—	3
	Children	1	3	2	—	2
	Total	2	14	9	1	6
Number of patients suffering from pulmonary tuberculosis.	Adult males	19	58	46	9	22
	Adult females	9	36	33	1	11
	Children	—	2	—	—	2
	Total	28	96	79	10	35
Number of patients suffering from non-pulmonary tuberculosis.	Adult males	1	6	6	—	1
	Adult females	1	5	3	1	2
	Children	12	15	15	2	10
	Total	14	26	24	3	13
GRAND TOTAL		44	136	112	14	54

APPENDIX 5 (continued).

(E) Return showing the extent of Residential Treatment provided during the year in Poor Law Institutions for persons chargeable to the Council.

		In Institutions on Jan. 1.	Admitted during the year.	Discharged during the year	Died in the Institutions.	In Institutions on Dec. 31.
Number of patients suffering from pulmonary tuberculosis.	Adult males	8	32	17	11	12
	Adult females	3	24	15	9	3
	Children	3	13	11	1	4
	Total	14	69	43	21	19
Number of patients suffering from non-pulmonary tuberculosis.	Adult males	3	9	3	2	7
	Adult females	4	12	8	3	5
	Children	9	20	16	4	9
	Total	16	41	27	9	21
GRAND TOTAL		30	110	70	30	40

(F) Return showing the results of observation of doubtfully tuberculous cases discharged during the year from Institutions approved for the treatment of Tuberculosis.

Diagnosis on discharge from observation	For Pulmonary Tuberculosis						For Non-Pulmonary Tuberculosis						Totals		
	Stay under 4 weeks			Stay over 4 weeks			Stay under 4 weeks			Stay over 4 weeks					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous...	...	1	...	...	2	...	...	...	...	...	1	1	...	4	1
Non-Tuberculous	1	1	1	...	...	...	1	...	...	2	1	1
Doubtful	1	...	..	...	..	...	...	...	...	...	...	...	1	...
Totals	2	...	1	3	1	...	...	...	1	1	1	2	6	2

(G) Return showing the immediate results of treatment of definitely tuberculous patients discharged during the year from Institutions approved for the treatment of Tuberculosis.

Classification on admission to the Institution.	Condition at time of Discharge.	Duration of Residential Treatment in the Institution.										Grand Totals.				
		Under 3 months (but over 28 days)			3-6 months.		6-12 months.		More than 12 months.				Totals.			
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.		F.	Ch.		
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.		F.	Ch.		
PULMONARY TUBERCULOSIS.	Quiescent ...	...	...	...	—	—	—	—	—	—	—	—	—	—	—	—
	Not Quiescent ...	...	...	...	1	3	—	1	2	—	—	—	—	2	7	9
	Died in Institution ...	...	...	...	—	—	—	1	—	—	—	—	—	2	—	2
	Quiescent ...	...	...	...	—	—	—	1	—	—	—	—	—	1	—	1
	Not Quiescent ...	...	...	...	1	—	—	4	2	—	1	3	—	6	5	11
	Died in Institution ...	...	...	...	—	—	—	—	—	—	—	—	—	—	—	—
	Quiescent ...	...	...	...	—	—	—	—	—	—	—	—	—	—	—	—
	Not Quiescent ...	...	...	...	9	5	—	9	10	—	4	1	—	22	16	38
	Died in Institution ...	...	...	...	1	1	—	—	—	—	—	—	—	1	1	2
	Quiescent ...	...	...	...	—	—	—	—	—	—	—	—	—	—	—	—
	Not Quiescent ...	...	...	...	2	1	—	5	—	—	2	—	2	11	1	12
	Died in Institution ...	...	...	...	1	—	—	1	—	—	—	—	1	3	—	3
TOTALS (Pulmonary) ...		15	10	—	22	14	—	8	6	—	3	—	48	30	—	78

APPENDIX 5 (continued).

Non-Pulmonary Tuberculosis.															
Bones & Joints.	Quiescent	—	—	—	—	—	1	—	—	—	1	2
	Not Quiescent	—	—	1	1	—	—	—	2	—	—	3
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—
Abdominal.	Quiescent	—	—	—	1	—	—	—	—	—	—	1
	Not Quiescent	—	—	—	—	1	—	—	—	—	1	—
	Died in Institution	—	—	1	—	—	—	—	—	—	—	1
Other Organs.	Quiescent	—	—	—	—	—	—	—	—	—	—	—
	Not Quiescent	1	—	—	—	—	—	—	—	1	—	—
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—
Peripheral Glands.	Quiescent	—	—	—	—	1	—	—	1	—	—	2
	Not Quiescent	—	—	3	—	1	—	—	4	—	—	8
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—
Totals (Non-Pulmonary)				...	1	—	5	1	1	3	1	—	7	—	20

APPENDIX 6.

TUBERCULOSIS SCHEME.—

Supplementary Annual Return showing in summary form (a) the condition and (b) the reasons for the removal of all cases written off the Register, first entered on the Dispensary Register as definite cases of

Condition at the time of the last record made during the year to which the return relates.					Previous to 1926.					1926.					1927.					1928.									
					Class T.B. plus				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus									
					Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)						
(a) Remaining on Dispensary Register on 31st December.					Disease Arrested.		Disease not Arrested.		Children	Disease Arrested.		Disease not Arrested.		Children	Condition not ascertained during the year.		Total on Dispensary Register at 31st December.		Children	Disease Arrested.		Disease not Arrested.		Children					
					Adults	M.	Adults	M.		Adults	F.	Adults	F.		Adults	M.	Adults	F.											
(b) Not now on Dispensary Register and reasons for removal therefrom.					Discharged as Recovered.		Lost sight of, or otherwise removed from Dispensary Register.		Children	Dead.		Totals written off Dispensary Register.		Children	Total of both classes					Discharged as Recovered.		Lost sight of, or otherwise removed from Dispensary Register.		Children					
					Adults	M.	Adults	F.		Adults	M.	Adults	F.							Adults	M.	Adults	F.						
Grand Totals					471	55	3	30	28	61	37	9	24	26	59	54	12	39	19	70									

PULMONARY TUBERCULOSIS.

at the end of 1934 of all patients remaining on the Dispensary Register;
The Table is arranged according to the years in which the patients were
pulmonary tuberculosis, and their classification at that time.

1929.					1930.					1931.					1932.					1933.					1934.				
Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus			
	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)
4	-	-	-	-	1	-	1	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	1	-	1	4	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	3	2	-	5	4	-	7	2	9	8	1	5	-	6	5	1	12	-	13	10	3	13	7	23	19	1	21	13	35
1	-	4	-	4	5	-	4	-	4	7	-	3	-	3	8	-	6	1	7	16	7	8	1	16	15	4	20	4	28
-	-	-	-	-	1	-	1	-	1	3	-	-	-	-	3	1	-	-	1	1	1	1	1	3	-	1	1	1	3
1	-	-	-	-	2	-	-	-	-	5	1	1	-	2	2	-	-	-	-	1	-	1	-	1	-	-	-	-	-
11	3	7	-	10	17	-	14	2	16	28	2	10	-	12	18	2	18	1	21	28	11	23	9	43	34	6	42	18	66
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	3	7	2	12	10	2	5	5	12	16	4	4	4	12	5	1	4	3	8	2	2	1	1	4	3	1	5	-	6
9	2	17	8	27	8	-	11	11	22	7	1	9	16	26	4	-	6	8	14	5	-	3	10	13	1	-	2	6	8
5	2	3	6	11	4	-	9	6	15	5	-	7	6	13	5	-	2	13	15	1	-	2	5	7	4	-	-	-	-
1	1	1	1	3	2	-	-	2	2	4	-	-	2	2	-	-	1	-	1	1	-	1	-	1	-	-	-	-	-
28	8	28	17	53	24	2	25	24	51	32	5	20	28	53	14	1	13	24	38	9	2	7	16	25	8	1	7	6	14
39	11	35	17	63	41	2	39	26	67	60	7	30	28	65	32	3	31	25	59	37	13	30	25	68	42	7	49	24	80

TUBERCULOSIS SCHEME.—

Supplementary Annual Return showing in summary form (a) the condition
(b) the reasons for the removal of

Condition at the time of the last record made during the year to which the return relates.						Previous to 1926.					1926.					1927.					1928.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
						Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
(a) Remaining on Dispensary Register on 31st December.						Disease Arrested.		Children	4	—	1	5	10	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NON-PULMONARY TUBERCULOSIS.

at the end of 1934 of all patients remaining on the Dispensary Register; and all cases written off the Register.

1929.					1930.					1931.					1932.					1933.					1934.				
Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	1	-	-	-	1	1	1	-	2	4	-	-	-	-	-
2	1	-	1	4	1	-	-	-	1	1	-	-	2	3	1	1	-	1	3	1	-	-	2	3	-	-	-	1	1
-	-	-	3	3	2	1	1	3	7	2	4	-	11	17	3	1	-	9	13	-	2	1	9	12	-	-	-	7	7
-	-	-	-	-	1	-	1	-	2	1	-	-	-	1	1	-	-	-	1	3	-	1	1	5	3	-	-	1	4
3	-	1	-	4	-	-	-	-	-	-	-	2	-	2	1	-	1	1	3	1	2	-	2	5	2	-	1	3	6
-	-	-	-	-	1	-	-	1	2	1	-	1	1	3	3	-	-	5	8	8	-	-	6	14	6	2	-	12	20
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-
5	1	1	4	11	5	1	2	4	12	6	5	3	14	28	10	2	1	16	29	14	5	2	24	45	11	2	1	24	38
-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	1	1	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	2	2	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1	-	3	5	-	-	-	4	4	-	1	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	2	2	1	6	1	-	-	2	3	2	3	1	6	12	1	-	-	2	3	1	-	-	2	3	1	-	-	1	2
1	-	-	-	1	1	-	-	-	1	-	-	-	-	-	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	1	1	-	2	-	1	1	-	2	-	-	1	-	1	1
1	-	-	-	1	1	1	1	1	4	1	1	-	2	4	3	-	-	-	3	-	-	-	-	-	-	1	1	-	2
4	3	2	7	16	3	1	2	8	14	4	5	1	9	19	6	1	1	2	10	1	1	1	2	5	1	1	2	1	5
9	4	3	11	27	8	2	4	12	26	10	10	4	23	47	16	3	2	18	39	15	6	3	26	50	12	3	3	25	43

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.

PART I.—Summary of Notifications during the period from the 1st January 1934, to the 31st December, 1934, in the area of the County Borough of Bootle.

AGE-PERIODS	Formal Notifications												
	Number of Primary Notifications of new cases of Tuberculosis.												Total Notifications
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total (all ages)	
Pulmonary, Males ...	1	...	...	3	3	11	22	9	18	9	2	78	108
" Females	...	1	5	2	11	16	19	4	5	...	1	64	84
Non-pulmonary, Males	2	7	4	5	2	2	...	3	1	1	1	28	37
" Females	...	4	12	4	...	3	5	3	...	1	1	33	39

SUPPLEMENTAL RETURN.

PART II.—New cases of Tuberculosis coming to the knowledge of the Medical Officer of Health during the above-mentioned period, otherwise than by formal notification.

AGE PERIODS	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Cases
Pulmonary Males ...	2	...	...	1	...	1	5	2	3	4	...	18
" Females	...	1	...	1	...	5	1	...	1	3	1	13
Non-pulmonary Males	...	1	...	...	1	...	...	...	...	1	...	3
" Females	...	...	...	2	1	1	1	1	...	...	...	6

APPENDIX 7 (continued).

The source or sources from which information as to the above-mentioned cases was obtained is stated below:—

SOURCE OF INFORMATION.	No. of Cases.	
	Pulmonary.	Non-Pulmonary.
Death Returns—From Local Registrars	5	2
" " Transferable Deaths from Registrar-General...	3	...
Posthumous notifications	8	2
"Transfers" from other areas (other than transferable deaths)	15	5
Other sources, if any (specify)— ... ..	...	...

PART III. NOTIFICATION REGISTER.

	Pulmonary.			Non-Pulmonary.		
	Males	Females	Total	Males	Females	Total
Number of cases of Tuberculosis remaining at the 31st December, 1934, on the Registers of Notifications kept by the Medical Officer of Health of the County Borough	302	278	580	142	162	304
Number of cases removed from the Registers during the year by reason <i>inter alia</i> of—						
1. Withdrawal of notification	1	...	1	...	...	1
2. Recovery from the disease	5	5	10	4	2	6
3. Death	62	36	98	14	11	25
						123

NUISANCES—

Notices to Owners—

Notices served on occupiers of houses—

Notices served on occupiers of food premises—

PLACES OF PUBLIC ENTERTAINMENT—

Housing Acts—

Howe Street Improvement Area—Re-inspections	...	...	...	...	144
Housing Act, 1930, Section 17—					
Number of houses inspected	...	...	...	...	368
Informal notices served	...	...	...	...	368
Informal notices complied with	...	...	...	...	230
Number of houses where work is in progress at end of year	...	...	...	...	271
Statutory notices served	...	...	...	...	89
Statutory notices complied with	...	...	...	...	6
Number of inspections and re-inspections made	...	...	...	...	5827

HOUSES LET IN LODGINGS—

Number of houses visited	...	...	...	...	...	...	...	45
Number of re-inspections made	...	...	...	...	...	...	...	90
Number found to be houses let in lodgings	...	...	...	...	...	...	...	10
Number of informal notices served	...	...	...	...	...	...	...	10
Number of notices complied with by carrying out the structural requirements	...	...	...	...	...	...	...	1
Number of notices complied with by reduction of families (including 5 from 1933)	...	...	...	...	...	...	...	11
Number still in abeyance	...	...	...	...	...	...	...	3

COMMON LODGING HOUSES—

No. registered under the Public Health Act, 1875	...	...	...	...	4
No. of inspections	...	...	...	...	120
No. of informations laid in respect of infringements	...	...	...	...	—

CANAL BOATS—

No. of inspections and re-inspections of canal boats	...	...	...	...	137
„ infringements re certificates	...	...	...	...	4
„ other defects	...	...	...	...	16
„ notices sent in respect of same	...	...	...	...	6
„ defects or infringements where necessary work was done without service of notice	...	...	...	...	7

STEPS TAKEN TO PREVENT NUISANCE FROM SMOKE--

No. of observations made	...	...	...	...	...	...	...	67
„ intimations sent	...	...	...	...	...	...	...	10
„ notices served in respect of excessive black smoke	...	...	...	...	...	...	...	1
„ informations laid	...	...	...	...	...	...	...	—
Amount of fines and costs	...	...	...	...	...	...	...	—

DAIRIES, COWSHEDS, AND MILKSHOPS—

No. of cowkeepers and dairymen resident in the borough on register	...	18
„ milk purveyors (not cowkeepers) resident in the borough on register		84
„ milk purveyors resident outside the borough on register	... ..	26
„ premises registered as cowsheds or dairies or milkshops	... ..	68
„ inspections made—Cowsheds 189, dairies and milkshops 310	... ..	499

PIGGERIES—

No. of premises	...	..	..	...	...	..	...	...	..	5
" visits made	...	..	..	...	...	..	...	...	...	146

STABLES—

[illegible]

RATS AND MICE (DESTRUCTION) ACT—

No. of visits made re infestation	116
-----------------------------------	-----	-----	-----	-----	-----	-----	-----	-----

FOOD INSPECTION—

No. of visits to	butchers' shops	...	...	...	...	...	...	1179
"	"	fishmongers' shops	...	...	...	...	...	97
"	"	fried fish shops	...	...	...	...	...	41
"	"	dining rooms and kitchens	...	...	...	...	...	206
"	"	grocers' shops	...	...	...	...	...	134
"	"	fruiterers	...	...	...	...	...	253
"	"	cold stores	...	...	...	...	...	38
"	"	ice cream premises	...	...	...	...	...	54
"	"	respecting observation to Merchandise Marks Act	...	...	...	...	...	269

SUMMARY OF LEGAL PROCEEDINGS—

Foods and Drugs (Adulteration) Act, 1928	...	...	...	...	...	2
Public Health Act, Section 91	...	...	...	...	...	5

DISINFECTION : INFECTIOUS DISEASES—

No. of houses disinfected after notifiable infectious diseases	...	...	...	547
„ houses disinfected after pulmonary tuberculosis	...	...	...	165
„ houses disinfected after other diseases	...	...	...	11
„ visits made to infected houses	...	...	...	637
„ re-visits made to infected houses	...	...	...	115
„ houses cleaned in default of or at request of owners	...	...	...	22

All houses assessed at £15 per annum or less are cleaned after infectious disease (i.e., the walls stripped and the ceilings whitened) by the Corporation at their own cost; in cases of pulmonary tuberculosis the Corporation strip, when necessary, whatever the rent.

LIST OF ARTICLES DISINFECTED—

Paillasses	...	...	...	...	...	...	...	...	...	207
Mattresses	...	...	...	...	...	...	...	...	...	2
Beds	...	...	...	...	...	...	...	...	...	423
Bolsters and Pillows	...	...	...	...	...	...	...	...	...	1467
Blankets	...	...	...	...	...	...	...	...	...	1185
Quilts	...	...	...	...	...	...	...	...	...	829
Sheets	...	...	...	...	...	...	...	...	...	683
Carpets	...	...	...	...	...	...	...	...	...	5
Hearthrugs	...	...	...	...	...	...	...	...	...	8
Wearing Apparel	...	...	...	...	...	...	...	...	...	2121
Miscellaneous Articles	...	...	...	...	...	...	...	...	...	248
										<hr/> 7178 <hr/>

The figures in the table do not include the ambulance bedding (one bed, one pillow and three blankets), which is disinfected after the removal of each case.

One hundred and seventy-five books were disinfected.

Seventy-eight articles were destroyed at the request of the owners.

BUG INFESTATION—

Number of houses fumigated	...	...	...	...	...	...	...	97
Number of van loads of furniture treated with hydrogen-cyanide	...	...	...	...	...	...	...	13

FLUSHING.

The flushing gang consists of two Corporation workmen and a Liverpool waterman.

No. of private houses at which drains were flushed	...	...	...	...	...	4987
No. of passage sewers flushed	...	...	...	...	...	224

Drains were flushed at public buildings 29 times.

The drains at the Bootle General Hospital, the Bootle Hospital Nurses' Home, the Bootle Maternity Home (51, Balliol Road), and the Liverpool Maternity Home in Hawthorne Road, were each flushed 12 times during the year; at the Health Centre, 7 times; and at Linacre Hospital twice during the year.

The amount of water used during the year was 772,750 gallons.

FACTORY AND WORKSHOP ACT.

WORKSHOPS AND WORKPLACES (excluding Bakehouses)—

No. on register	...	...	...	...	...	...	96
No. of visits and re-visits	...	...	...	...	...	...	354
" workrooms with dirty walls or ceilings	...	...	...	...	...	...	5
" " " lavatories	...	...	...	...	...	...	2
" " " floors	...	...	...	...	...	...	—
" " " not properly ventilated	...	...	...	...	...	...	—
" " " found overcrowded	...	...	...	...	...	...	—
" defective drains and water closets	...	...	...	...	...	...	5
" miscellaneous defects found	...	...	...	...	...	...	11
" notices issued to occupiers	...	...	...	...	...	...	18
" notices issued to owners	...	...	...	...	...	...	5
" notices complied with	...	...	...	...	...	...	23
" references to the Factory Inspector	...	...	...	...	...	...	—
" " " Borough Engineer	...	...	...	...	...	...	—

FACTORIES—

No. of visits and re-visits	...	...	...	...	...	...	...	321
No. with insufficient or unsuitable sanitary accommodation	...	...	...	...	...	...	...	4
No. of defective yard surfaces	...	...	...	...	...	...	...	4
„ defective drains and water closets	...	...	...	...	...	...	...	3
„ offensive accumulations	...	...	...	...	...	...	...	5
„ miscellaneous defects found	...	...	...	...	...	...	...	13
„ defects remedied	...	...	...	...	...	...	...	29

BAKEHOUSES—

No. on register	... ..	18
No. of visits and re-visits	.. ...	73
,, bakehouses found dirty (walls and ceilings and floors)	... ..	7
,, notices issued for limewashing	.. ...	4
,, notices issued for miscellaneous defects	... ..	3
,, bakehouses taken off the register during the year	... ..	1
,, bakehouses added to the register during the year	... ..	—

CONFECTIONERY BAKEHOUSES—

No. on register at end of year	22
No. taken off register during the year	1
No. added to register during the year	2
No. of visits and re-visits	47
No. found dirty (walls and ceilings and floors)	5
No. of notices issued for limewashing	5
" " " miscellaneous defects	1

OUTWORKERS—

No. of outworkers on register at end of year	4
„ visits and re-visits made to houses of out-workers	11
„ notices served for sanitary defects at houses of outworkers	—
Outworkers employed in Bootle for Liverpool firms engaged in—	
Making wearing apparel	4
Outworker employed in Litherland for Bootle firm:—	
Hosiery	1

APPENDIX 9.

FOOD AND DRUGS (ADULTERATION) ACT, 1928.

SAMPLES TAKEN DURING THE YEAR 1934.

Nature of Article.	Total.	Number of Samples taken for Analysis.		Number found Adulterated.	
		Informal	Formal	Informal	Formal
Milk	125	47	78	...	11
Condensed Milk	10	10	...	...	...
Cream	3	3	...	...	...
Butter	15	15	...	...	...
Margarine	15	15	...	...	...
Tea	2	2	...	...	...
Cheese	11	11	...	...	...
Rice	9	9	...	1	...
Cocoa	2	2	...	...	...
Sausage	6	6	...	2	...
Lard	5	5	...	...	...
Ground Almonds	5	5	...	...	...
Pepper	4	4	...	...	...
Ginger Wine	2	2	...	1	...
Tapioca	3	3	...	...	...
Self-raising Flour	4	4	...	...	...
Salmon Paste	4	4	...	...	...
Dried Fruit	2	2	...	...	...
Sweets	2	2	...	...	...
Jam	8	8	...	1	...
Olive Oil	1	...	1	...	1
Lemon Cheese	1	1	...	...	...
Orange Wine	1	1	...	1	...
TOTALS	240	161	79	6	12

APPENDIX 10.

THE PUBLIC HEALTH (PRESERVATIVES IN FOOD)
REGULATIONS, 1925-1927.

Year 1934.

Nature of Article.	Number of samples examined for presence of preservative.	Number of samples found correct.
Milk 	125	125
Cream 	3	3
Condensed Milk 	10	10
Butter 	15	15
Margarine 	15	15
Sausages 	6	5
Dried Fruit 	2	2
Salmon Paste 	4	4
Sweets 	2	2
Jam 	8	7
Tapioca 	3	3
Ginger Wine 	2	1
Orange Wine 	1	—
Lemon Cheese 	1	1
Pepper 	4	4
Totals ...	201	197

APPENDIX 11.

RETURN relating to all persons who were treated at the TREATMENT CENTRE at BOOTLE GENERAL HOSPITAL during the year ended the 31st December 1934.

	Syphilis.		Soft Chancre.		Gonorrhoea.		Conditions other than venereal.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals.
1. Number of cases on 1st January under treatment or observation.	90	33	3	—	204	33	17	—	314	66	380
2. Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	16	3	—	—	21	3	—	—	37	6	43
3. Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from:											
Syphilis, primary	11	1	—	—	—	—	—	—	11	1	12
" secondary	5	5	—	—	—	—	—	—	5	5	10
" latent in 1st year of infection	13	—	—	—	—	—	—	—	13	—	13
" all later stages	17	12	—	—	—	—	—	—	17	12	29
" congenital	1	9	—	—	—	—	—	—	1	9	10
Soft Chancre	—	—	8	—	—	—	—	—	8	—	8
Gonorrhoea, 1st year of infection	—	—	—	—	101	20	—	—	101	20	121
Gonorrhoea, later	—	—	—	—	19	11	—	—	19	11	30
Conditions other than venereal	—	—	—	—	—	—	52	24	52	24	76
4. Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection.	17	8	1	—	15	18	—	—	33	26	59
TOTALS OF ITEMS 1, 2, 3 & 4.	170	71	12	—	360	85	69	24	611	180	791
5. Number of cases discharged after completion of treatment and final tests of cure (see Item 15)	12	4	4	—	25	13	57	21	98	38	136
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from:—											
Syphilis, primary	1	1	—	—	—	—	—	—	1	1	2
" secondary	2	6	—	—	—	—	—	—	2	6	8
" latent in 1st year of infection	—	3	—	—	—	—	—	—	—	3	3
" all later stages	1	11	—	—	—	—	—	—	1	11	12
" congenital	—	3	—	—	—	—	—	—	—	3	3
Soft Chancre	—	—	—	—	—	—	—	—	—	—	—
Gonorrhoea, 1st year of infection	—	—	—	—	49	21	—	—	49	21	70
Gonorrhoea, later	—	—	—	—	11	4	—	—	11	4	15
7. Number of cases which ceased to attend after completion of treatment but before final tests of cure (see Item 15)	19	3	—	—	39	2	—	—	58	5	63
8. Number of cases transferred to other centres or to institutions, or to care of private practitioners	27	—	5	—	46	4	—	—	78	4	82
9. Number of cases remaining under treatment or observation on 31st December	108	40	3	—	190	41	12	3	313	84	397
TOTALS OF ITEMS 5, 6, 7, 8 & 9.	170	71	12	—	360	85	69	24	611	180	791

(These totals should agree with those of Items 1, 2, 3 and 4)

	Syphilis.		Soft Chancre.		Gonorrhoea.		Conditions other than venereal.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals.
10. Number of cases in the following stages of syphilis included in Item 6 which failed to complete one course of treatment:											
Syphilis, primary	1	—	—	—	—	—	—	—	1	—	1
„ secondary	2	—	—	—	—	—	—	—	2	—	2
„ latent in 1st year of infection	—	—	—	—	—	—	—	—	—	—	—
„ all later stages	—	4	—	—	—	—	—	—	—	4	4
„ congenital	—	2	—	—	—	—	—	—	—	2	2
11. Number of attendances:—											
(a) for individual attention of the medical officers	3403	801	105	—	6238	671	346	52	10092	1524	11616
(b) for intermediate treatment, e.g., irrigation, dressing	—	—	—	—	4035	—	—	—	4035	—	4035
TOTAL ATTENDANCES	3403	801	105	—	10273	671	346	52	14127	1524	15651
12. In-patients:—											
(a) Total number of persons admitted for treatment during the year	4	1	—	—	4	6	—	—	8	7	15
(b) Aggregate number of "in-patient days" of treatment given	212	28	—	—	182	254	—	—	394	282	676
	Under 1 year.		1 and under 5 years.		5 and under 15 years.		15 years and over.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
13. Number of cases of congenital syphilis in Item 3 above classified according to age periods	—	2	—	3	—	—	1	4	1	9	
	Arsenobenzine Compounds.				Mercury.				Bismuth.		
14. Chief preparations used in treatment of syphilis:—											
(a) Names of preparations	Neo-Kharsivan, Kharsulphan, and Sulpharsenal				Mercolloid				Metallic Bismuth and Bisglugol		
(b) Total number of injections given (out-patients and in-patients)	1101				51				1464		
15. Are the tests recommended in Memo. V21 as amended by Memo. V21A followed in deciding as to the discharge of the patient after treatment and observation for syphilis and gonorrhoea?	MALE—										
If not, in what way are they modified?	Yes as far as possible, but as a large proportion of the patients are of the seafaring type, it is not always practicable to carry the tests out to a definite conclusion.										
	FEMALE—Not Quite.										
	Syphilis: Negative blood and no clinical signs for two years after cessation of all treatment.										
	Gonorrhoea: Negative smears from urethra and cervix and no discharge for 3 months after cessation of treatment.										

APPENDIX 11 (continued).

	Microscopical		Serum Tests		
	for spirochetes.	for gonococci.	Wassermann.	Others for Syphilis.	for Gonorrhoea.
16. Pathological Work:—					
(a) Number of specimens examined at and by the medical officer of the treatment centre	3	234	—	—	—
(b) Number of specimens from patients attending at the Treatment Centre sent for examination to an approved laboratory	—	173	346	—	—

Statement showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients resided.

	Bootle.		Liverpool.		Lancashire.		Various.		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	
A. Number of cases in Items 3 and 4 from each area found to be suffering from:—									
Syphilis	19	23	14	9	13	3	18	—	99
Soft Chancre	1	—	3	—	1	—	4	—	9
Gonorrhoea	44	15	28	22	28	12	35	—	184
Conditions other than venereal	16	15	16	3	14	6	6	—	76
TOTAL ...	80	53	61	34	56	21	63	—	368
B. Total number of attendances of all patients residing in each area	7000	939	2712	357	3867	217	548	11	15651
C. Aggregate number of "In-patient days" of all patients residing in each area	33	206	57	53	221	23	83	—	676
D. Number of doses of approved arsenobenzene compounds given in the out-patient Clinic and In-patient Department to patients residing in each area.	355	216	154	41	244	30	61	—	1101

W. L. WEBB, M.B., Ch.B.,
RUTH NICHOLSON,

20th February 1934

Medical Officers of the Treatment Centre.

APPENDIX 12.

VENEREAL DISEASES

Annual Return of Pathological Examinations made during the year ended on the 31st December 1934.

At the University of Liverpool—

For detection of spirochaetes—For Treatment Centre	...	...	...	—
For Practitioners	...	...	...	—
For detection of gonococci—For Treatment Centre	...	...	...	173
For Practitioners	...	...	...	6
For Wassermann reaction—For Treatment Centre	...	...	...	346
For Practitioners	...	...	...	77

APPENDIX 13.

WORK DONE BY THE WELFARE VISITORS.

[illegible]

APPENDIX 14.

ANTE-NATAL CLINICS.

JANUARY 1ST TO DECEMBER 31ST 1934.[illegible]

RETURN to be made on or before the 9th of February, 1935, by Mr. R. W. Jackson, Vaccination Officer of the Bootle Sub-District of the West Derby Registration District, respecting the Vaccination of Children whose Births were registered from 1st January to 31st December 1933, inclusive.

Registration Sub-Districts comprised in the Vaccination Officer's District.	Number of Births returned in the "Births List Sheets" as regis- tered from 1st Jan., to 31st Dec., 1933.	Number of these Births duly entered by 31st January, 1935, in Columns I., II., IV. and V. of the "Vaccination Regis- ter" (Birth List Sheets), viz. :						Number of these Births which on 31st January, 1935, remained un- entered in the "Vaccination Register" on account (as shown by "Report Book") of			Number of these Births remaining on 31st January, 1935, neither duly entered in the "Vaccination Register" (columns 3, 4, 5, 6 and 7 of this Return) nor temporar- ily accounted for in the "Report Book" (columns 8, 9 and 10 of this Return.	*Total number of Certificates of Successful Primary Vaccination of Children under 14 received during the Calendar Year 1934.	Number of Statutory Declarations of Conscien- tion Objection received by the Vaccina- tion Officer irrespective of the dates of birth of the children to which they relate, during the Calendar Year 1934.
		Col. I.	Col. II.		Col. IV. Number in re- spect of whom Statu- tory Declara- tions of Con- scien- tious Objection have been received.	Col. V. Died Unvac- cinated.	Postpone- ment by Medical Certi- ficate.	Removal to Districts the Vaccina- tion Officers of which have been duly apprised.	Removal to places unknown, or which cannot be reached, and Cases not hav- ing been found.				
			Insus- ceptible of Vac- cination.	Had Small Pox.									
1	2	3	4	5	6	7	8	9	10	11	12	13	
BOOTLE ...	1532	1170	30	—	183	89	13	21	12	14	1534	210	
Total ...	1532	1170	30	—	183	89	13	21	12	14	1534	210	

8th February, 1935.

R. W. JACKSON, Vaccination Officer.

NOTE.—The total of the figures in columns 3 to 11 should agree with the figure in column 2. Any cases of children successfully vaccinated after the declaration of conscientious objection had been made should be included in column 6 above and not in column 3. The number of such cases should be inserted here:—Nil.

*The total in this column should be the number of Certificates of successful primary vaccination of children under 14, actually received during the year, including any relating to births registered in previous years. The total thus given should include the Certificates of successful primary vaccination, of which copies have been sent to Vaccination Officers of other Districts. The total number of Certificates for the year 1934 sent to other Vaccination Officers should be stated here:—299.

APPENDIX 16.

LINACRE HOSPITAL.—REVISED DIAGNOSES AND COMPLICATIONS.

95

SCARLET FEVER ADMISSIONS.		Booth	Lith-land	Form-by	DIPHTHERIA ADMISSIONS.		Booth	Lith-land	Form-by
Re-diagnosed as :—					Re-diagnosed as :—				
Scarlet Fever and Burns	... Tibia ...	3	—	—	Diphtheria and Cretinism	...	1	—	—
" " Fractured	... Psoriasis ...	—	1	—	" " Measles	...	1	—	—
" " Tumour of Foot	...	1	—	—	Bronchitis	...	1	—	—
" " Diphtheria	...	2	—	—	Febricula	...	2	1	—
" " " "	...	1	—	—	Impetigo	...	1	—	—
Chickenpox	...	1	—	—	Laryngitis	...	7	—	—
Erythema	...	3	—	1	Lobar Pneumonia	...	1	1	—
Febricula	...	2	1	—	Measles	...	3	—	—
Nil	...	4	2	—	Nil	...	—	1	—
Septic Sores	...	1	—	—	Scarlet Fever	...	3	2	—
Tonsillitis	...	11	4	—	Tonsillitis	...	33	4	2
					Vincent's Angina	...	1	—	—
Totals	...	29	8	1	Totals	...	54	9	2

APPENDIX 17.

METEOROLOGICAL DATA FOR 1934.

Supplied by the Liverpool Observatory and Tidal Institute.

Month	Mean Barometer.	Mean Temperature.	Rainfall.	Mean Cloud.
January ...	30·020 ins.	41·5°	1·484 ins.	6·0
February ...	30·454 ins.	40·7°	0·134 ins.	7·0
March	29·661 ins.	41·1°	1·260 ins.	6·9
April	29·692 ins.	45·6°	1·697 ins.	6·5
May	30·068 ins.	50·8°	1·645 ins.	6·8
June	30·063 ins.	57·7°	1·469 ins.	5·5
July	30·016 ins.	64·0°	0·697 ins.	5·4
August ...	29·854 ins.	58·7°	3·795 ins.	6·8
September ...	29·945 ins.	55·0°	2·256 ins.	5·7
October ...	29·891 ins.	51·0°	4·748 ins.	7·8
November ...	30·055 ins.	43·9°	1·779 ins.	8·3
December ...	29·495 ins.	46·0°	4·126 ins.	7·8
Year	29·935 ins.	49·7°	25·090 ins.	6·7

APPENDIX 18.

LOCAL POWERS RELATING TO PUBLIC HEALTH.

(1) ACTS OF PARLIAMENT ADOPTED BY THE COUNCIL.

Dates provisions became operative.

Infectious Disease (Notification) Act, 1889	...	...	...	8	April, 1891
Infectious Disease (Prevention) Act, 1890, sections 4, 5, 6, 14, 16, 17, 18, 20, 21	...	...	...	11	Oct., 1893
Public Health Acts Amendment Act 1890, Part III.	...	...	...	11	Oct., 1893
Infectious Disease (Prevention) Act, 1890, section 15	...	...	...	5	Sept., 1900
Public Health Acts Amendment Act, 1907, Section 95	...	...	...	11	Dec., 1908
Public Health Acts Amendment Act, 1907, Sections 22, 23, 24, 33, 35, 44, 50, 51, 52, 53, 54, 55, 57, 61, 62, 63, 64, 65, 69, 70, 71, 72, 73, 74, 75	...	...	...	20	Feb., 1915
Public Health Act, 1925, Sections 13, 14, 15, 16, 17, 18, 19, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54 and 55	...	...	...	1	Dec., 1926

(2) **BOOTLE CORPORATION ACTS AND ORDERS—**

Bootle Corporation Act, 1890	...	...	...	...	...	1 Sept., 1890
Bootle Order, 1897; confirmed by the Local Government Board's Provisional Orders Confirmation (No. 16) Act, 1897, relative to Sanitary Improvements	...	...	...	...	...	24 Mar., 1897
Bootle Corporation Act, 1899	...	...	...	...	...	8 Aug., 1899
Bootle Corporation Act, 1905	...	...	...	...	...	9 Nov., 1905
Bootle Order, 1914; confirmed by the Local Government Board's Provisional Orders Confirmation (No. 6) Act, 1914, relating to the substitution of moveable ashpits for fixed ashpits	...	...	...	...	...	13 Mar., 1914
Bootle Corporation Act, 1920	...	...	...	...	...	31 Mar., 1921
Bootle Order, 1927; confirmed by the Ministry of Health's Provisional Orders Confirmation (No 4) Act, 1927, relating to the substitution of ashbins for ashpits	...	...	...	...	...	24 Mar., 1927
Bootle Corporation Act, 1930	...	...	...	...	...	1 Aug., 1930

(3) BYE-LAWS AND REGULATIONS IN FORCE IN THE BOROUGH—

[illegible]

